OAH Docket No. 11-0900-18038-1
Governor's Tracking No. AR 112

STATE OF MINNESOTA
OFFICE OF ADMINISTRATIVE HEARINGS

FOR THE DEPARTMENT OF HEALTH

In the Matter of the Proposed Permanent Rules Relating to Wells and Borings, Minnesota Rules Chapter 4725.

REPORT OF THE ADMINISTRATIVE LAW JUDGE

Administrative Law Judge Barbara L. Neilson conducted a hearing concerning rules proposed by the Minnesota Department of Health (the Department or MDH) regarding specifications and standards for installation, maintenance, and sealing of wells and borings of various types. The hearing was held on January 9, 2008, beginning at 9:00 a.m. in Room B107, Orville L. Freeman Building, 625 North Robert Street, Saint Paul, Minnesota. A videoconference link was established to allow participation from the Minnesota Department of Health Building, Room 300, 1505 Pebble Lake Road, Fergus Falls, Minnesota. Seventeen persons signed the hearing register in St. Paul and two signed the hearing register in Fergus Falls. The hearing continued until everyone present had an opportunity to state his or her views on the proposed rules.

The hearing and this Report are part of a rulemaking process governed by the Minnesota Administrative Procedure Act.[1] The legislature has designed the rulemaking process to ensure that state agencies have met all the requirements that Minnesota law specifies for adopting rules. Those requirements include assurances that the proposed rules are necessary and reasonable and that any modifications that the agency made after the proposed rules were initially published do not result in their being substantially different from what the agency originally proposed. The rulemaking process also includes a hearing when a sufficient number of persons request one. The hearing is intended to allow the agency and the Administrative Law Judge reviewing the proposed rules to hear public comment regarding the impact of the proposed rules and what changes might be appropriate.

Greg Shaefer, Assistant Attorney General, appeared for the Department. The members of the Department's hearing panel were Daniel Wilson, Manager of the Wells Management Section; and Ronald Thompson, Hydrologist Supervisor, both of whom are employed by the Department.

[1] Minn. Stat. §§ 14.131 through 14.20. (Unless otherwise specified, all references to Minnesota Statutes are to the 2006 edition, and all references to Minnesota Rules are to the 2007 edition.)

The Department and the Administrative Law Judge received written comments on the proposed rules prior to the hearing. At the hearing, the initial deadline for filing written comment was set at twenty calendar days (January 29, 2008), to allow interested persons and the Department an opportunity to submit written comments. Following the initial comment period, the record remained open for an additional five business days (February 5, 2008), to allow interested persons and the Department the opportunity to file a written response to the comments received during the initial period. To aid the public in participating in this matter, comments were posted on the Office of Administrative Hearings' website as they were received. The hearing record closed for all purposes on February 5, 2008.[2]

NOTICE

The Department must make this Report available for review by anyone who wishes to review it for at least five working days before the Department takes any further action to adopt final rules or to modify or withdraw the proposed rules. If the Department makes changes in the rules other than those recommended in this report, it must submit the rules, along with the complete hearing record, to the Chief Administrative Law Judge for a review of those changes before it may adopt the rules in final form.

Because the Administrative Law Judge has determined that the proposed rules are defective in certain respects, state law requires that this Report be submitted to the Chief Administrative Law Judge for his approval. If the Chief Administrative Law Judge approves the adverse findings contained in this Report, he will advise the Department of actions that will correct the defects, and the Department may not adopt the rules until the Chief Administrative Law Judge determines that the defects have been corrected. However, if the Chief Administrative Law Judge identifies defects that relate to the issues of need or reasonableness, the Department may either adopt the actions suggested by the Chief Administrative Law Judge to cure the defects or, in the alternative, submit the proposed rules to the Legislative Coordinating Commission for the Commission's advice and comment. The Department may not adopt the rules until it has received and considered the advice of the Commission; however, the Department is not required to wait for the Commission's advice for more than 60 days after the Commission has received the Department's submission.

If the Department elects to adopt the actions suggested by the Chief Administrative Law Judge and make no other changes and the Chief Administrative Law Judge determines that the defects have been corrected, it may proceed to adopt the rules. If the Department makes changes in the rules other than those suggested by the Administrative Law Judge and the Chief Administrative Law Judge, it must submit copies of the rules showing its changes, the rules as initially proposed, and the

[2] Pursuant to Minn. Stat. § 14.15, subd. 2, and Minn. R. 1400.2240, subp. 1, the Chief Administrative Law Judge has granted an extension for the preparation of this Report.

proposed order adopting the rules to the Chief Administrative Law Judge for a review of those changes before it may adopt the rules in final form.

After adopting the final version of the rules, the Department must submit them to the Revisor of Statutes for a review of their form. If the Revisor of Statutes approves the form of the rules, the Revisor will submit certified copies to the Administrative Law Judge, who will then review them and file them with the Secretary of State. When they are filed with the Secretary of State, the Administrative Law Judge will notify the Department, and the Department will notify those persons who requested to be informed of their filing.

Based upon all the testimony, exhibits, and written comments, the Administrative Law Judge makes the following:

FINDINGS OF FACT

I. Background and Nature of the Proposed Rules

1. The Minnesota Well Code, Minnesota Statutes Chapter 103I and Minnesota Rules Chapter 4725, governs the installation, maintenance, and sealing of wells and borings. In these proposed rules, the Department seeks to modify definitions, update references to national standards, revise the licensing process for installers, streamline the permit process, reduce annular space requirements, reduce flowing well and boring requirements, revise minimum setback distances from contamination sources, and strengthen requirements applicable to public water-supply wells. The Department asserts that the new rules are necessary "to incorporate new construction materials and methods, improve public and worker safety, protect groundwater quality, allow design flexibility and eliminate unnecessary restrictions, and reorganize existing rules for clarity and consistency."[3]

2. The Department described the importance of standards in this area as follows:

> Groundwater, which is water contained in pore spaces of sediment, and pores and fractures of bedrock, is the principal source of drinking water for two-thirds of the state's residents. Over 90 percent of Minnesota's cities have wells for public water supply, and virtually all rural residents drink groundwater from wells. Wells also provide water for irrigation, food processing, and numerous commercial and industrial purposes; are used for monitoring and remediating contamination; and are used for dewatering to allow for installation of utilities and construction of buildings. Borings provide information on groundwater and geology, are used to facilitate the operation of certain types of elevators, and are used for geothermal space heating and cooling.[4]

[3] Ex. D (SONAR) at 3.
[4] SONAR at 3.

II. Compliance with Procedural Rulemaking Requirements

3. On March 22, 2004, the Department published in the *State Register* a Request for Comments on the Department's intention to draft amendments to the rules pertaining to wells and borings adopted under Minn. Stat. § 103I.101, subd. 1. The notice indicated that the Department had a draft of the possible rule underway and that the draft would be available before the Notice of Intent to Adopt Rules was published. The Department requested comments on the proposed rule amendments.[5]

4. On May 3, 2007, the Department filed a proposed additional notice plan for its Notice of Hearing and requested that the plan be approved pursuant to Minn. R. 1400.2060. By letter of May 14, 2007, the Chief Administrative Law Judge approved the additional notice plan and authorized the Department to omit the text of the proposed rules from publication in the State Register.[6]

5. As required by Minn. Stat. § 14.131, the Department asked the Commissioner of Finance to evaluate the fiscal impact and benefit of the proposed rules on local units of government. The Department of Finance provided comments in response to the request in a memorandum dated June 26, 2007.[7]

6. On November 14, 2007, MDH mailed the Dual Notice of Intent to Adopt Rules Without a Public Hearing to all persons and associations who had registered their names with the Department for the purpose of receiving such notice and to those persons identified in the Department's additional notice plan.[8] The Notice contained the elements required by Minn. R. 1400.2080, subp. 2. The Notice identified the date and locations of the scheduled hearing, should a sufficient number of hearing requests be received in this matter. The Notice also announced that the hearing would continue until all interested persons had been heard, or additional hearing dates added, if needed.[9] A sufficient number of persons requested a hearing, which was held as scheduled on January 9, 2008.

7. At the hearing the Department filed copies of the following documents as required by Minn. R. 1400.2220:

A. the Department's Request for Comments as published in the *State Register* on March 22, 2004;[10]

B. the proposed rules dated August 13, 2007, including the Revisor's approval;[11]

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[5] 28 State Reg. 1149-1150 (March 24, 2004); Ex. A.
[6] Ex. J.
[7] Ex. K.
[8] Exs. G & H.
[9] Ex. F.
[10] Ex. A.
[11] Ex. C.

C. the Agency's Statement of Need and Reasonableness (SONAR);[12]

D. a letter dated May 14, 2007, noting that the Chief Administrative Law Judge had approved the Department's Notice of Hearing and Additional Notice Plan; [13]

E. the Notice of Intent to Adopt Rules as mailed and published in the *State Register* on November 19, 2007;[14]

F. the certification that the Department mailed a copy of the SONAR to the Legislative Reference Library on November 14, 2007;[15]

G. the Certificate of Mailing the Dual Notice of Intent to Adopt Rules Without a Public Hearing, the Proposed Rules, and the Statement of Need and Reasonableness to the Rulemaking Mailing List; the Certificate of Mailing to the parties identified in the Department's Additional Notice Plan on November 14, 2007; and the Certificate of Accuracy of the Mailing List as of that date;[16]

H. the Certificate of Sending the Notice of Hearing and the SONAR to various Legislators on November 14, 2007, accompanied by a copy of the transmittal letter;[17]

I. a letter to the Commissioner of Agriculture dated May 9, 2007, accompanied by a copy of the proposed rules, in accordance with Minn. Stat. § 14.111, based upon the Department's determination that application of the proposed rules may affect some farming operations through the application of minimum setback distances;[18] and

J. the Notice of Hearing mailed to those persons who requested that a hearing be held.[19]

8. The Administrative Law Judge finds that the Department has met all of the procedural requirements under applicable statutes and rules.

III. Statutory Authority

9. In its SONAR, the Department asserts that its statutory authority to adopt these rules is contained in a number of provisions in Minnesota Statutes chapter 103I.[20]

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[12] Ex. D.
[13] Ex. J.
[14] Ex. F.
[15] Ex. E.
[16] Exs. G & H.
[17] Ex. K.
[18] *Id*.
[19] *Id*.

Section 103I.101, subdivision 2, requires the Commissioner of Health to regulate wells and borings; examine, license, and register persons conducting well and/or boring work; establish design, location, construction, repair, and sealing standards; and issue permits. Section 103I.101, subdivisions 3 and 5, require the Commissioner to establish rules governing issuance, suspension, and revocation of licenses and registrations, establish minimum well standards, impose reporting requirements, and establish standards in areas of contamination, wellhead protection, record submission, and borings.

10. Under Minnesota Statutes, section 103I.205, subdivisions 2, 4, 5, 6, and 9, the Commissioner is authorized to adopt rules relating to emergency permits and notification exemptions, qualifications of well contractors, at-grade wells, isolation distances from contamination sources, and submission of reports.[21] Section § 103I.221, subdivision 2, authorizes rulemaking governing the installation of plastic well casing. Section 103I.301, subdivision 4, authorizes the Commissioner to adopt rules relating to sealing wells and borings. Sections 103I.401, subdivision 3, and 103I.451 authorize the adoption of rules relating to sealing elevator borings and environmental bore holes. Section 103I.501 requires the Commissioner to regulate and license persons working on wells, well pumps and pumping equipment, elevator borings, environmental bore holes, and vertical heat exchangers.[22]

11. Under Minn. Stat. § 103I.525, subdivision 8, the Commissioner is authorized to establish rule requirements for continuing education of applicants seeking to renew licenses issued under this chapter. Section 103I.531, subdivision 4, authorizes the Commissioner to establish rules for a dewatering limited license. Section 103I.535, subdivision 8, requires the Commissioner to establish rules for continuing education for certified representatives of elevator boring contractors. In addition, Minn. Stat. §§ 103I.535, subd. 8, and 103I.541, subd. 1, require the Commissioner to establish rules for continuing education for certified representatives of elevator boring contractors and certified representatives of monitoring well contractors. Section 103I.621 authorizes the Commissioner to adopt rules pertaining to groundwater thermal exchange devices.

12. Chapter 103I comprehensively regulates the subject of wells and borings and authorizes the Department to carry out rulemaking to enforce those regulations. The Administrative Law Judge concludes that the Department has statutory authority to adopt the proposed rules.

IV. Additional Notice Requirements

13. Under Minn. Stat. §§ 14.131 and 14.23, an agency must include in its SONAR a description of its efforts to provide additional notification to persons or classes of persons who may be affected by the proposed rule or explain why these efforts were

[20] SONAR at 4-8.

[21] Minn. Stat. § 103I.205, subds. 2, 4, 5, 6 & 9.

[22] This portion of the statute does not expressly authorize rulemaking.

not made. As discussed above, the Department submitted an additional notice plan to the Office of Administrative Hearings, which was reviewed and approved by the Chief Administrative Law Judge.

14. As described below, the Department made significant efforts to inform and involve interested and affected parties in this rulemaking:

A. Newsletter articles announcing the process to revise the rules were published in the Winter 2001, Summer 2002, Fall/Winter 2002/2003, Spring 2003, Fall/Winter 2003/2004, Spring/Summer 2004, Fall/Winter 2005/2006, and Spring/Summer 2006 issues of the *Well Management Newsletter*.[23] This newsletter has been mailed to approximately 1,440 persons, including all MDH-licensed drilling contractors; numerous federal, state, and local officials; and other persons who have requested to be on the mailing list. The published notices requested that rule comments and suggestions be forwarded to the MDH.[24]

B. A newsletter article about rulemaking and a summary of issues was published in *Well Advised*, July/August 2003, the newsletter of the Minnesota Water Well Association. The Minnesota Water Well Association membership consists of approximately 200 well contractors, well suppliers and manufacturers, and groundwater and water supply technical persons.

C. Newsletter articles concerning the proposed rules were published in the *Minnesota Ground Water Association Newsletter*, September 2002 and December 2004. The Minnesota Groundwater Association membership consists of approximately 550 technical, legal, regulatory, educational, government, public, and other members with an interest in ground water.

D. The *Water Well Journal*, published monthly by the National Ground Water Association, reported on the proposed rules in the September 2005 issue, Volume 59, Number 9. The *Water Well Journal* is sent to the more than 15,000 members of the National Ground Water Association. Membership of that organization consists of groundwater scientists and engineers, regulatory officials, well and groundwater contractors, and manufacturers and suppliers of drilling equipment.

E. The Department has held eight or nine evening district meetings around the state each year, for the last five years, to discuss rule

[23] The Department noted that the newsletter publication schedule changed from quarterly to semi-annually in 2003. SONAR at 17.
[24] SONAR at 16.

issues and possible amendments to the rules. The meeting attendees included well contractors, limited well/boring contractors, suppliers, local delegated well program staff, other state agency personnel, engineering consultants, county personnel, and members of the public. Attendance by persons other than agency staffers at the district meetings totaled 123 people in 2002, 158 people in 2003, 140 people in 2004, 116 people in 2005, 133 people in 2006, and 121 people in 2007.

F. Presentations discussing and receiving comments on possible rule amendments were held at the Minnesota Water Well Association annual conferences in 2002, 2003, 2004, 2005, and 2006.

G. Presentations concerning the proposed rules were made at a University of Minnesota workshop for persons interested in individual sewage treatment systems held in Owatonna on January 26, 2005, and at the Noncommunity Public Water Systems Training Program on March 1, 2005, attended by state and local government water program staff.

H. Presentations discussing the proposed rules were also given at 22 educational seminars for well contractors held at locations throughout Minnesota between 2002 and 2006.

I. An Advisory Council on Wells and Borings was assembled under Minn. Stat. § 103I.105. The Advisory Council is an 18-member council comprised of two public members; ten contractor representatives from the well, monitoring well, exploration, elevator, and vertical heat exchanger drilling industries; and representatives from state agencies such as the Minnesota Department of Natural Resources, the Minnesota Department of Health, the Minnesota Geological Survey, the Minnesota Pollution Control Agency, the Minnesota Department of Transportation, and the Minnesota Board of Water and Soil Resources. Proposed rule revisions were discussed with the Advisory Council at 16 meetings held between September 6, 2000, and June 1, 2005. The Advisory Council provided considerable input and review during the rulemaking process.

J. On May 4, 2005, the Department posted on its website a draft copy of the proposed rule, a copy of the Request for Comments as published in the *State Register* on March 22, 2004, a page of information and instructions about the proposed rulemaking, and a comment page allowing persons to directly comment via the Web page. The posting was highlighted on the Department's home page, the Environmental Health home page, and the Well Management Section home page. The information was posted for

60 days and extended until July 18, 2005, due to the partial government shutdown. The posting encouraged comments by mail, telephone, facsimile transmission, e-mail, or via the Internet.

K. On November 14, 2007, a copy of the proposed rule and the Notice of Hearing was mailed to a significant number of persons who are subject to the Well Code, or are otherwise interested in this subject matter. This group included persons holding licenses or other credentials from the Department, public health officials, members of affected groups, and local government officials.[25]

15. The Department received sufficient requests for the rule to proceed to hearing. The Department also received comments from the Minnesota Department of Agriculture (Agriculture), the Minnesota Pollution Control Agency (MPCA), and several licensees.[26]

16. The Department has made extraordinary efforts to widely disseminate its ideas regarding amendments to the Well Code and seek public input. These outreach efforts, including presentations to affected public, were held throughout Minnesota and directed at those with significant interest in this area. The Administrative Law Judge finds that the Department has satisfied the notice requirements for these proposed rules.

V. Impact on Farming Operations

17. Minnesota Statutes section 14.111 imposes an additional requirement calling for notification to be provided to the Commissioner of Agriculture when rules are proposed that affect farming operations. In addition, where proposed rules affect farming operations, Minn. Stat. § 14.14, subd. 1b, requires that at least one public hearing be conducted in an agricultural area of the state.

18. The Department acknowledged that the proposed rules regarding isolation or setback requirements from "sources of farming-related contamination including feedlots and agricultural chemicals . . . might affect farming operations."[27] Because application of the proposed rules may affect some farming operations, the Department sent a letter to the Commissioner of Agriculture dated May 9, 2007, accompanied by a copy of the proposed rules and the SONAR.[28]

19. The public hearing held in St. Paul in this rulemaking proceeding was connected by videoconference to Fergus Falls, an agricultural area of Minnesota that would potentially be affected by the proposed rules. The Administrative Law Judge

[25] Ex. K.
[26] Ex. I.
[27] Ex. K.
[28] *Id*.

concludes that the Department has provided notice in accordance with Minn. Stat. § 14.111.

VI. Compliance with Other Statutory Requirements

A. Cost and Alternative Assessments

20. Minnesota Statute section 14.131 requires an agency adopting rules to include in its SONAR:

> (1) a description of the classes of persons who probably will be affected by the proposed rule, including classes that will bear the costs of the proposed rule and classes that will benefit from the proposed rule;
>
> (2) the probable costs to the agency and to any other agency of the implementation and enforcement of the proposed rule and any anticipated effect on state revenues;
>
> (3) a determination of whether there are less costly methods or less intrusive methods for achieving the purpose of the proposed rule;
>
> (4) a description of any alternative methods for achieving the purpose of the proposed rule that were seriously considered by the agency and the reasons why they were rejected in favor of the proposed rule;
>
> (5) the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals;
>
> (6) the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals; and
>
> (7) an assessment of any differences between the proposed rule and existing federal regulations and a specific analysis of the need for and reasonableness of each difference.

21. Regarding the first factor, the Department indicated in its SONAR that the proposed rules will primarily affect licensed and registered contractors who construct, repair, or seal wells and borings, and the owners of wells and borings. The Department estimated that approximately 650 persons are certified to perform work in this area, representing 400 licensees or registrants. The majority of licenses and registrations are held by businesses rather than by individuals. The Department noted that some businesses hold multiple licenses, primarily “limited” licenses for various aspects of repair, service or sealing. The Department estimated that about 12,000 wells and borings are constructed annually. A similar number of wells and borings are sealed each year. The Department estimated that approximately 450,000 residences obtain their individual water supply from wells, and the typical life expectancy of a private well

is from 25 to 75 years. The proposed amendments do not add or delete new classes of licenses. The proposed rules do not establish fees. The Department anticipates that the proposed rules will result in cost savings in some areas and increased costs in other areas. Both the cost savings and increases will be borne by the same persons affected by the existing rule.[29]

22. The Department estimated that, of the proposed amendments that alter a regulatory requirement, approximately 60 percent are less stringent, or provide more alternatives, than the existing rule. Examples of such rules include fewer continuing education requirements for certified representatives of limited well and boring contractors; fewer information requirements for vertical heat exchanger permit applications; reduction of the required inner/outer minimum casing sizes; less "wait on cement" time; some less stringent requirements for flowing wells and borings; alternatives for sealing materials for all large diameter wells and borings; and reduction of some isolation distances. In each of these instances, the Department made the determination that the less restrictive requirements are sufficient to protect groundwater, public health, and safety, consistent with the statutory obligation to ease the regulatory burden and reduce costs to the affected classes wherever feasible.[30]

23. With respect to some of the amendments, the Department has determined that more restrictive rule requirements are necessary to provide greater protection. Increasing the minimum grouting depth from 30 feet to 50 feet is an example of such a change. In some instances, the Department indicated that the more stringent requirements are being proposed because new techniques or materials are available that are more protective of groundwater. The Department estimated that, overall, the proposed rule will result in a small increase (between $10 and $100) in the $4,000 to $6,000 cost of a typical domestic water well. The increase is primarily due to the expense of grouting an additional 20 feet.[31] The Department noted that some contractors are already grouting 50 feet or more (with some grouting the entire length of the casing). Full-length grouting of public water-supply wells that are not currently full-length grouted is estimated to add costs in the hundreds of dollars, which the Department estimates will be the largest cost increase as a result of the rules. This cost increase will affect fewer than 300 wells each year, all of which serve large numbers of people. Some of the affected wells provide water for facilities that serve vulnerable populations, such as schools, childcare facilities, and nursing homes, thereby increasing the need for protection of the water supply. The Department projected that the cost savings will be large for a small number of wells and borings, such as large diameter wells or borings that may use alternative sealing materials that are less expensive. The Department also noted that significant cost savings will be realized in the installation of flowing wells or borings that will no longer be required to be cement-grouted. The

[29] SONAR at 8-9.

[30] *Id*. at 9.

[31] The Department described grouting as the process of sealing the area between the steel or plastic well casing and the bore hole by pressure injecting cement or a slurry of special clay into that area (the "annular" space). *See* SONAR at 9.

Department concluded that, overall, the estimated increased costs would balance the reduced costs, and that no net cost increase would arise from these rules.[32]

24. The Department concluded that the proposed rule will benefit the general public by providing increased protection of the groundwater and environment. Because groundwater serves as the principal source of drinking water for two thirds of the state's population, the Department views groundwater as a valuable resource. However, the Department noted that it is also a vulnerable resource, since a mistake in well or boring installation or maintenance has the potential to contaminate the drinking water supply over a large area. The requirement that better wells be installed initially will benefit well owners by reducing the need for drilling some replacement wells. Proper location and installation of wells will avoid the need to install expensive treatment systems to remove contaminants, leading to additional benefits. The Department concluded that long-term savings will exceed the initial cost increases for some wells. The Department believes the proposed rule benefits the entire state by reducing the likelihood that a well or boring will become a conduit for contamination, either through poor construction techniques or poor sealing practices.[33]

25. As to the second factor, the Department noted that the proposed rules will not affect the Department's own costs in administering the Well Code. With respect to anticipated costs to other agencies, the Department noted that some state agencies conduct regulated well or boring activities, and these agencies are exempt from payment of license, permit, or other fees; however, these agencies are not exempt from rule compliance. The Department identified the Minnesota Department of Natural Resources, the Minnesota Department of Transportation, and the Minnesota Pollution Control Agency as registered monitoring well contractors. These agencies construct and seal a limited number of monitoring wells and environmental bore holes. Because the proposed rules provide for only minor changes to the monitoring well and environmental bore hole standards, the Department concluded that no additional costs will be borne by these agencies. The Department estimated that small additional construction costs will be incurred for the few wells drilled each year for state parks, highway rest stops, or other facilities. Cost savings will occur for some wells constructed or sealed by state agencies. The Department concluded that cost savings resulting from the proposed rules should offset any construction cost increases.[34]

26. Regarding the third and fourth factors, the Department expressed its opinion that the proposed rules incorporate the least costly and intrusive methods that still provide adequate protection for public health and groundwater. The Department provided an extensive list of specific rule provisions incorporating less costly or less intrusive methods that were proposed after lengthy discussions with industry representatives. Similarly, the Department detailed its analysis regarding the grouting

[32] SONAR at 9.
[33] *Id*. at 10.
[34] *Id.*

of annular spaces, demonstrating that the agency carefully considered alternatives to the proposed rule.[35]

27. With regard to the fifth regulatory factor, the Department noted that the proposed rule incorporates many less costly or less intrusive methods than those provided in the existing rules. Some of the proposed rules impose equivalent costs to the existing rules, or are clarifications that would not affect the cost of compliance with the Well Code. The Department found that few of the proposed rule amendments would result in direct or indirect costs to the regulated industry. The Department anticipates that cost savings and increases will largely be borne by the well or boring owner, not the regulated industry. The Department indicated that the following rule requirements may increase costs:

a) requiring notifications to be received during normal business hours;

b) changing the grouting requirement from 30 to 50 feet;

c) regulating borings in special well and boring construction areas;

d) changing some chemical treatment requirements;

e) increasing contamination source isolation distances (primarily for additional trenching, electric cable and waterline);

f) changing silt and clay standards;

g) adding hydrofracturing requirements;

h) adding a requirement to test for arsenic;

i) requiring grouting and disinfection for public water-supply wells; and

j) changing the hydraulic fluid protective requirements for repair of elevators.[36]

28. The Department asserted that significant public health benefits will result from the proposed rules. The Department acknowledged that the typical new domestic well in an unconsolidated formation will experience a nominal increase in cost due to rules requiring increased grouting and an arsenic test, and that new noncommunity public wells in unconsolidated formations may cost more because of the grouting requirements in the proposed rules. The Department projected that the proposed rules will reduce costs associated with flowing wells and borings, bedrock wells and borings, and sealing of wells and borings, and some of the decreases will be substantial.

[35] *Id.* at 10-12.
[36] *Id*. at 12-13.

Overall, the Department concluded that the proposed rule should result in no net increase in costs to persons in the state.[37]

29. With respect to the sixth factor, the Department stated that government units, businesses, and individuals would avoid some minimal costs if the proposed rule were not adopted, but failing to adopt the rule would result in less protection of drinking water and groundwater, continuation of outdated standards, failure to address newer technologies such as hydrofracturing, less design flexibility, misinterpretation and compliance errors by regulated parties due to inconsistent or unclear requirements, and reduced protection of public health and safety.[38]

30. Regarding the seventh factor, the Department indicated that the proposed rules encompass areas that are not addressed by federal law. Therefore, no assessment of differences between the proposed rules and existing federal regulations can be done.[39]

31. The Administrative Law Judge concludes that the Department has fulfilled its obligation under Minn. Stat. § 14.131 to discuss costs and alternatives in the SONAR.

B. Performance-Based Regulation

32. Under Minn. Stat. § 14.131, an agency must include in its SONAR a description of how it "considered and implemented the legislative policy supporting performance-based regulatory systems set forth in section 14.002." Section 14.002 states, in relevant part, that "whenever feasible, state agencies must develop rules and regulatory programs that emphasize superior achievement in meeting the agency's regulatory objectives and maximum flexibility for the regulated party and the agency in meeting those goals."

33. The Department described its approach to this requirement as follows:

> The MDH's goals in regulating wells and borings are to protect public health and safety and to protect Minnesota's groundwater resources. With these goals in mind, the MDH has analyzed the drilling processes used by the industry, and has determined that uniform rules based on industry standard procedures and materials are the best method for achieving public health goals with the least cost and burden to the regulated industry and the public.
>
> Drilling procedures have been refined over 100 years, and are usually very similar from contractor to contractor, and from well to well with similar hydrogeologic conditions. The same equipment, techniques, and materials are generally used. Standards and specifications were developed in the

[37] *Id.* at 13.
[38] *Id*.
[39] *Id.*

industry long before regulations were put in place. For example, well casing is made in a limited number of standardized sizes and thread configurations so that drill bits will fit inside a casing (without standardization, a bit even 1/32 inch too big won't fit), and so components bought at different times, or from different manufacturers, will fit together. A performance-based rule would require the regulated parties to test these materials themselves, instead of simply using a standardized product. Another example involves the use of drilling water. Instead of just using a known potable water source or adding approximately $2 of chlorine to the drilling water, a performance based standard would require water analysis of each water batch. This could cost tens or hundreds of dollars, and result in days of delay waiting for the results. Given these types of disincentives, the vast majority of contractors would likely continue to use standardized procedures even if given the opportunity to use performance-based standards. Well contractors frequently say that the rule should be simple and set a "level playing field."

Both the existing and the proposed rule are preventive in nature. The purpose is to prevent contamination from occurring both now, and in the future. A well may have a usable life of tens or even hundreds of years. A performance standard such as a water test, only determines whether contamination has already occurred, and can be highly dependent on timing. Contamination is not necessarily predictable or consistent. If precautions are not taken, contamination can occur at irregular times, such as after a flood, heavy rain, sewer break, or pesticide application. Accordingly, even the most diligent use of water testing would not prevent contamination, and would likely not prevent illness in many scenarios. Moreover, frequent testing would need to be done for a wide enough array of contaminants to limit health risks. This type and frequency of testing would cost well owners tens of thousands of dollars over the life of the well. Although testing is a critical part of maintaining a well, it is not a substitute for structural integrity and proper design that prevent contaminants from entering the well in the first place.

Since performance based standards would be more costly and time consuming to the contractor and owner, without providing the long term protection necessary for the life of the well or boring, they are not common in the existing rule. However, the rule has incorporated performance-based standards in those instances where appropriate. For example, a provision in part 4725.3850, subpart 5a, sets thresholds for the use of less costly grout or fill materials based on the effectiveness of grouting. Part 4725.4650 establishes a performance standard as a numerical sediment concentration, instead of prescriptive criteria specifying screen slot size, screen placement, screen materials, and development methods.

> Flexibility in unique situations is incorporated into this proposed rule through the variance process established in Minnesota Rules, parts 4717.7000 through 4717.7050.[40]

34. The Administrative Law Judge finds that the Department has met the requirements set forth in Minn. Stat. § 14.131 for assessing the impact of the proposed rules, including consideration and implementation of the legislative policy supporting performance-based regulatory systems. The Department's reasons for prescriptive regulation are supported by the record. The Department's approach to this rulemaking does not conflict with the legislative directives regarding performance-based regulatory systems.

C. Consultation with the Commissioner of Finance

35. Under Minn. Stat. § 14.131, the agency is also required to "consult with the commissioner of finance to help evaluate the fiscal impact and fiscal benefits of the proposed rule on units of local government." The Department submitted a copy of the SONAR and the proposed rule to the Commissioner of Finance for review. In a memorandum dated June 26, 2007, the Minnesota Department of Finance reported that the proposed rule would have minimal fiscal impact on local units of government.[41]

36. The Administrative Law Judge finds that the Department has met the requirements set forth in Minn. Stat. § 14.131 for assessing the impact of the proposed rules, including consideration and implementation of the legislative policy supporting performance-based regulatory systems.

D. Cost to Small Businesses and Cities under Minn. Stat. § 14.127

37. Under Minn. Stat. § 14.127, when adopting rules an agency must "determine if the cost of complying with a proposed rule in the first year after the rule takes effect will exceed $25,000 for: (1) any one business that has less than 50 full-time employees; or (2) any one statutory or home rule charter city that has less than ten full-time employees."[42] The Department must make this determination before the close of the hearing record, and the Administrative Law Judge must review the determination and approve or disapprove it.[43]

38. The Department stated in the SONAR that neither of these types of entities will incur significant costs associated with the proposed rule. The Department noted that the costs are borne by well and boring owners, and the entire cost of the most expensive well is far below the threshold of $25,000. The Department estimated that the cost of a well would increase from $100 to a few hundred dollars per well and that

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[40] SONAR at 15-16.
[41] Ex. K.
[42] Minn. Stat. § 14.127, subd. 1.
[43] Minn. Stat. § 14.127, subd. 2.

no entity will need to replace so many wells in a single year that the threshold could be reached.[44]

39. The Administrative Law Judge finds that the Department has made the determination required by Minn. Stat. § 14.127 and approves that determination.

VII. Rulemaking Legal Standards

40. Under Minnesota law,[45] one of the determinations that must be made in a rulemaking proceeding is whether the agency has established the need for and reasonableness of the proposed rules by an affirmative presentation of facts. In support of a rule, an agency may rely on legislative facts, namely general facts concerning questions of law, policy and discretion, or it may simply rely on interpretation of a statute, or stated policy preferences.[46] The Department prepared a Statement of Need and Reasonableness (SONAR)[47] in support of its proposed rules. At the hearing, the Department relied upon the SONAR as its affirmative presentation of need and reasonableness for the proposed amendments. The SONAR was supplemented by comments made by Department staff at the public hearing, and by its written post-hearing comments.

41. The question of whether a rule has been shown to be reasonable focuses on whether it has been shown to have a rational basis, or whether it is arbitrary, based upon the rulemaking record. Minnesota case law has equated an unreasonable rule with an arbitrary rule.[48] Arbitrary or unreasonable agency action is action without consideration and in disregard of the facts and circumstances of the case.[49] A rule is generally found to be reasonable if it is rationally related to the end sought to be achieved by the governing statute.[50] The Minnesota Supreme Court has further defined an agency's burden in adopting rules by requiring it to "explain on what evidence it is relying and how the evidence connects rationally with the agency's choice of action to be taken."[51]

42. Reasonable minds might be divided about the wisdom of a certain course of action. An agency is legally entitled to make choices between possible approaches so long as its choice is rational. It is not the role of the Administrative Law Judge to determine which policy alternative presents the "best" approach, since this would invade

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[44] SONAR at 14-15.

[45] Minn. Stat. § 14.14, subd. 2; Minn. R. 1400.2100.

[46] *Mammenga v. Commissioner of Human Services*, 442 N.W.2d 786 (Minn. 1989); *Manufactured Hous. Inst. v. Pettersen*, 347 N.W.2d 238, 244 (Minn. 1984).

[47] Ex. D.

[48] *In re Hanson*, 275 N.W.2d 790 (Minn. 1978); *Hurley v. Chaffee*, 231 Minn. 362, 43 N.W.2d 281, 284 (1950).

[49] *Greenhill v. Bailey*, 519 F.2d 5, 19 (8th Cir. 1975).

[50] *Mammenga*, 442 N.W.2d at 789-90; *Broen Mem'l Home v. Minnesota Dept. of Human Services*, 364 N.W.2d 436, 444 (Minn. Ct. App. 1985).

[51] *Manufactured Hous. Inst. v. Pettersen*, 347 N.W.2d at 244.

the policy-making discretion of the agency. The question is, rather, whether the choice made by the agency is one that a rational person could have made.[52]

43. In addition to need and reasonableness, the Administrative Law Judge must also assess whether the Department complied with the rule adoption procedure, whether the rule grants undue discretion, whether the Department has statutory authority to adopt the rule, whether the rule is unconstitutional or illegal, whether the rule constitutes an undue delegation of authority to another entity, or whether the proposed language is not a rule.[53]

44. The Department proposed modifications to several parts of the proposed rules after publication of the rule language in the *State Register.* Specifically, the Department further modified parts 4725.0100, subps. 30e, 44a, and 45a; 4725.0150, item E; 4725.2350, subp. 1; 4725.3150, subp. 2; 4725.3650, subp. 4; 4725.4450, subp. 1, items A(1) and (6), B(2), C(2), E(1), (7), (24), and (27), and G(10); 4725.4450, subp. 2, items A, B, and E; 4725.6050, subp. 4; and 4725.6650, subp. 1. To approve such modifications, the Administrative Law Judge must determine if the new language is substantially different from that which was originally proposed. The standards to determine whether changes to proposed rules create a substantially different rule are found in Minn. Stat. § 14.05, subd. 2. The statute specifies that a modification does not make a proposed rule substantially different if "the differences are within the scope of the matter announced . . . in the notice of hearing and are in character with the issues raised in that notice," the differences "are a logical outgrowth of the contents of the . . . notice of hearing, and the comments submitted in response to the notice," and the notice of hearing "provided fair warning that the outcome of that rulemaking proceeding could be the rule in question." In reaching a determination regarding whether modifications result in a rule that is substantially different, the Administrative Law Judge is to consider whether "persons who will be affected by the rule should have understood that the rulemaking proceeding . . . could affect their interests," whether the "subject matter of the rule or issues determined by the rule are different from the subject matter or issues contained in the . . . notice of hearing," and whether "the effects of the rule differ from the effects of the proposed rule contained in the . . . notice of hearing."[54]

45. Most of the modifications made after original publication of the proposed rules were designed to correct citations or misspellings found in the rule. Such changes do not make the rule substantially different from the language originally published in the *State Register*. Where needed, the Administrative Law Judge will discuss the changes in the context of the legal analysis of the proposed rule. For any modification not expressly discussed below, the Administrative Law Judge finds that the change will not result in a rule that is substantially different from the rule as originally proposed.

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[52] *Federal Sec. Adm'r v. Quaker Oats Co.*, 318 U.S. 218, 233 (1943).

[53] Minn. R. 1400.2100.

[54] Minn. Stat. § 14.05, subd. 2.

VIII. Analysis of the Proposed Rules

46. This Report is limited to discussion of the portions of the proposed rules that received critical comment or otherwise need to be examined, and will not discuss each comment or rule part. Persons or groups who do not find their particular comments referenced in this Report should know that each and every suggestion, including those made prior to the hearing, has been carefully read and considered. Moreover, because sections of the proposed rules were not opposed and were adequately supported by the SONAR, a detailed discussion of each section of the proposed rules is unnecessary.

47. The Administrative Law Judge finds that the Department has demonstrated, by an affirmative presentation of facts, the need for and reasonableness of all rule provisions not specifically discussed in this Report. The Administrative Law Judge also finds that all provisions not specifically discussed are authorized by statute and there are no other problems that would prevent the adoption of the rules.

IX. Rule-by-Rule Analysis

Proposed Rule Part 4725.0100 - Definitions

48. Proposed rule 4725.0100 defines terms that are used in the proposed rules. Only the terms that received comments or otherwise require discussion are discussed below. The Department has demonstrated that the remaining definitions are needed and reasonable.

Subpart 23 - Cesspool

49. Subpart 23 of existing rule part 4725.0100 defines "cesspool." That portion of the rules was not proposed for change in this rulemaking proceeding. Mark Wespetal of the MPCA recommended that MDH add a new definition of “cesspool” to its rules by referencing the definition in the MPCA’s proposed Design Standards for Individual Subsurface Sewage Treatment Systems, part 7080.1100, subpart 15. Mr. Wespetal stated that those rules would take effect on February 2, 2008.

50. The Department noted that the definition of “cesspool” in the Individual Subsurface Sewage Treatment Systems rules includes septic or other sewage tanks designed to be watertight, but which subsequently leak. The Department concluded that inclusion of this provision “could retroactively create violations of the setback requirements where a septic tank is installed legally at a 50-foot distance from a well, but if leakage occurs, becomes in violation if a 75-foot distance does not exist.”[55] The Department declined to make the proposed change.

51. The definition of “cesspool” was not proposed for amendment in this proceeding. Any change to that rule provision at this stage would constitute an

[55] Ex. L (Jan. 9, 2008, Letter from MDH) at 2.

improper substantial change from the rules as originally proposed. The Department is encouraged to consider this comment further in connection with future rulemaking.

Subpart 24a – Confining Layer

52. The current rules define "confining layer" as "a stratum of a geologic material at least ten feet thick that has a vertical hydraulic conductivity of less than 10^{-6} centimeters per second, including clay as defined by the United States Department of Agriculture in Handbook 18, and shale." In the proposed rules, the Department seeks to expand the existing rule definition as follows:

> "Confining layer" means a stratum of a geologic material that restricts vertical water movement. A confining layer includes:
>
> A. a stratum at least ten feet in vertical thickness of unconsolidated materials or bedrock, that has a vertical hydraulic conductivity of 10^{-6} centimeters per second or less;
>
> B. a stratum at least ten feet in vertical thickness of clay, sandy clay, or silty clay as defined by the United Stated Department of Agriculture in Handbook 18; or
>
> C. a stratum at least ten feet in vertical thickness of the St. Lawrence or Eau Claire sedimentary bedrock formation, or a stratum at least two feet in vertical thickness of the Decorah or Glenwood sedimentary bedrock formation, as described in "Geology of Minnesota: A Centennial Volume" by Sims, P.K., and Morey, G.B., pages 459-473, "Paleozoic Lithostratigraphy of Southeastern Minnesota" by George Austin, which is incorporated by reference. The publication is available at the Minnesota Geological Survey, Minnesota Department of Health, or through the Minitex interlibrary loan program.

53. In the SONAR, the Department provided the following explanation for the proposed modification:

> Confining layers are comprised of bedrock, such as shale, or unconsolidated materials, such as clay, that stop or severely restrict water movement. Confining layers separate aquifers. Aquifers are bedrock or unconsolidated materials that store and transmit water such as sand, gravel, or porous limestone. This proposed amendment defines "confining layer" to be geologically accurate, eliminate interpretation, adopt a quantifiable standard, and exclude small or minor layers of rock or unconsolidated materials that restrict water movement to an insignificant degree.[56]

[56] SONAR at 29-30.

The Department indicated that the three criteria set forth in the proposed rule to determine the existence of a confining layer (i.e., a vertical hydraulic conductivity measurement of 10^{-6} centimeters per second or less; the presence of sediment meeting the U.S. Department of Agriculture textural classification of clay, sandy clay, or silty clay; or the presence of a sedimentary bedrock mapped and described in the scientific literature as a confining layer) are the most commonly available criteria. The MDH also noted that the proposed definition provides a simple field identification method, offers a specific measurable numeric standard, and is supported by published scientific literature. The Department maintains that the values set in the rule "are sufficient to prevent significant flow of water between the aquifers separated by the confining layers."[57]

54. William and Wesley Salverda of Salverda Well Company in Forest Lake objected to some of the language in the proposed rule. They maintained that the St. Lawrence formation is not a confining layer because it was destroyed by the movement of glaciers. They asserted that the St. Lawrence formation produces more water than the Franconia formation (which contains arsenic). The Salverdas also contended that well records incorrectly identify the St. Lawrence formation. They maintain that the Minnesota Geological Survey has records showing that 2,000 wells draw water from the St. Lawrence formation and that the DNR considers that formation to be an aquifer capable of pumping large amounts of water by permit. The Salverdas also asserted that a definitive map of the St. Lawrence formation does not exist. For these reasons, they recommended that the St. Lawrence formation be regulated as a confining layer only in those locations where it has been proven to be a confining layer. They suggested that regulation of the St. Lawrence formation be limited to areas south of Interstate 94 or Highway 36. They also objected to restricting the use of the Mt. Simon formation.[58]

55. In its post-hearing comments, the Department responded that the St. Lawrence formation has not been destroyed by glaciers and is intact over a large portion of southeastern Minnesota, although it has been weathered by glacial or other action in certain limited instances. The Department noted that a confining formation may produce some water from horizontal layers, while still confining vertical water movement. The Department indicated that it was not aware of any instances in which the St. Lawrence will produce more water than the Franconia. The Department indicated that there was no reporting of either widespread or significant arsenic levels being detected in the Franconia formation. The Department cited a 1998 Ground Water Monitoring and Assessment Program Study (GWMAPS) by the MPCA, which reported that the testing of 25 Franconia formation wells showed a minimum arsenic concentration of <0.060 micrograms per liter (µg/L), a maximum of 16 µg/L, and a median of 0.69 µg/L. The same study reported that the testing of four St. Lawrence formation wells showed a minimum arsenic concentration of 0.12 µg/L, a maximum of 14 µg/L, and a median of 4.6 µg/L. This study, as well as the Department's Minnesota

[57] *Id*. at 29, 30.

[58] Testimony of William and Wesley Salverda at Public Hearing; Letter from William Salverda (Jan. 21, 2008).

Arsenic Study, was cited to show that St. Lawrence and Franconia wells have a similar experience with arsenic.[59]

56. The Department agreed that some well records incorrectly identify the St. Lawrence, but noted that as many or more well records incorrectly identify other formations. The Department acknowledged that the St. Lawrence does change in lithology across counties and can be difficult to identify under some circumstances, and stated that, because of these difficulties, the MDH and the Minnesota Geological Survey have conducted two studies to map the St. Lawrence to assist well contractors. The MDH indicated that other resources exist that independently map the St. Lawrence, such as some county atlases. The Department also noted that well records are available online and staff from the MDH and the Minnesota Geological Survey are available for consultation.[60]

57. Regarding prior usage of the St. Lawrence formation, the Department noted that restrictions began in 1993. No prohibition existed prior to that time, and since 1993 it has been permissible to use up to 10 feet of the St. Lawrence. The Department considered it likely that the majority of the 2,000 wells described by the commentators were drilled in the St. Lawrence formation when it was legal to do so. The Department also maintained that some among the total cited were likely not completed in the St. Lawrence formation. The Department noted that some of the St. Lawrence wells have been sealed, either because they failed, did not produce enough water, or were illegally constructed and the MDH required corrective action. In the Department's experience it was rare for old wells to be drilled only in the St. Lawrence formation because it did not produce enough water; typically such wells interconnected the Jordan and St. Lawrence formations, or the St. Lawrence and Franconia formations, drawing water from these other formations.[61]

58. Regarding the Mt. Simon formation, the Department noted that it is not designated as a confining layer, and its use is not restricted under the proposed rules. The Department noted that Minn. Stat. § 103G.271 prohibits the Department of Natural Resources from issuing new water use permits to appropriate water from the Mt. Simon or Hinckley formations in a metropolitan county unless the appropriation is for potable water use, there are no feasible or practical alternatives to the appropriation, and a water conservation plan is incorporated into the permit.[62]

59. The Department asserted that the St. Lawrence is identified as a confining layer in several published reports of the U.S. Geological Survey and the Minnesota Geologic Survey, and provided citations to those reports in its post-hearing comments. The MDH also noted that the designation of the St. Lawrence as a confining layer is supported by water level differences between the overlying Jordan formation and

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[59] MDH's Post-Hearing Comment at 2 (Jan. 29, 2008). The Department cited other testing that tended to show that the most severe arsenic problem is associated with Des Moines Lobe glacial deposits. *Id*.

[60] MDH's Post-Hearing Comment at 3.

[61] *Id*. at 3.

[62] *Id*.

underlying Franconia formation, measurements of hydraulic properties, and a 1992 rule report issued regarding prior rule amendments. The Department provided the following explanation of the nature of confining layers:

> A confining layer slows the movement of water from one formation to the next. A perfect confining layer will stop all water, and will yield no water, just as a perfect aquifer will yield an infinite amount of water. In reality, neither a perfect confining layer nor a perfect aquifer exists. Natural sediment and bedrock formations are somewhere in between. Most confining layers allow some water movement, but it may be in terms of hundreds or thousands of years to cross the barrier. Some portions of some confining layers may produce water.

The Department recognized that, in limited circumstances, a portion of a formation designated and mapped as a confining layer will exhibit some characteristics of an aquifer. The Department stated that, although the St. Lawrence is a regional confining layer, it can in some limited circumstances produce limited quantities of water for domestic wells. The Department asserted that it is prudent to regulate it as a confining layer since it exhibits characteristics of a confining layer across the state, and make exceptions where it is proven not to be a confining layer. The Department declined to limit its regulation of that formation to areas south of Highway 36 or Interstate 94, based on a study performed at the University of Minnesota showing that the St. Lawrence is a confining layer at that location. The Department also pointed out that proposed part 4725.2020, subpart 1a, allows for designation of unique, local areas where a named confining layer may be used as an aquifer.[63]

60. The Department has demonstrated the need for and reasonableness of the proposed rule's designation of the St. Lawrence formation as a confining layer. The Department has demonstrated that the proposed definition of a confining layer is needed and reasonable.

Subpart 30e – Holding Tank

61. Subpart 30d of the existing rules defines the term "holding tank." The subpart in which the definition is located was renumbered as part of the proposed rules, but the Department did not initially propose any other changes to the definition. The MPCA suggested that the definition would be improved if a reference were made to the MPCA's definition of that term in Minn. Rule 7080.1100, subpart 40. The Department agreed with the suggested change. The Department also proposed to replace the term "disposal" in the rules as originally proposed with the term "dispersal" consistent with the MPCA recommendation for part 4725.0100, subpart 45a, resulting in subpart 30e being changed as follows:

> Subp. 30e, Holding tank. "Holding tank" <u>has the meaning given in part 7080.11005, subpart 40</u>, and means a watertight tank for storage of

[63] *Id*. at 4-5.

sewage until it can be transported to a point of approved treatment and ~~disposal~~ dispersal.[64]

62. The definition, as modified after publication of the proposed rules, has been shown to be needed and reasonable to define the term 'holding tank" for purposes of Chapter 4725. The modification was made in response to comments received during this rulemaking proceeding and does not render the rule substantially different from the rule as originally proposed.

Subpart 30o – Noncommunity Water System

63. Subpart 30o of the proposed rules adds a new definition of the phrase "noncommunity water system." The proposed rules specify that a "noncommunity water system" means "a public water system that serves an average of at least 25 persons daily for at least 60 days a year, at a place other than their home, and that is not a community water system. A noncommunity water system includes, but is not limited to, water systems serving churches, schools, resorts, parks, camps, rest areas, and businesses meeting the criteria listed above."

64. The Department has demonstrated that the first sentence of the definition is needed and reasonable to identify water-supply wells used to provide water for a noncommunity water system, since the proposed rules include requirements for community and noncommunity water systems that are different from other water-supply wells.[65] However, the second sentence is impermissibly vague because (1) the use of the open-ended phrase "includes, but is not limited to" fails to provide adequate notice to the regulated public as to what is included in the list and grants unduly broad discretion to the agency;[66] and (2) the language of the second sentence fails to make it clear whether or not a single system can meet the definition (as opposed to plural "systems"), or whether or not the final clause of the proposed rules ("meeting the criteria listed above") applies to all of the listed items or just the last item ("businesses"). This impermissible vagueness constitutes a defect in the proposed rules.

65. In the SONAR, the Department indicated that the proposed definition of "noncommunity water system" was "consistent with the definition in Minnesota Rules, Chapter 4720, relating to public water supplies, and the Safe Drinking Water Act definition of a 'noncommunity water system.'" The Department did not offer any further explanation in the SONAR for the list included in the proposed rule.[67]

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[64] Ex. L at 2.

[65] *See* proposed rule parts 4725.5825 and 4725.5850.

[66] *See, e.g., In the Matter of the Proposed Permanent Rules Governing Water Quality Standards*, OAH Docket No. 10-2200-14812-1 (2002); *In the Matter of the Proposed Permanent Rules Governing Deed Tax,* OAH Docket No. 7-2700-13138-1 (2000); In the Matter of the Proposed Adoption of Rules Relating to the Petroleum Tank Release Compensation Board, OAH Docket No. 9-1010-9231-1 (1995); *In the Matter of the Proposed Adoption of Permanent Rules Relating to Surveillance and Utilization Review of Medical Assistance Services,* OAH Docket No. 4-1800-5176-1 (1991).

[67] SONAR at 35.

66. Minn. Rule 4720.5100, subpart 23, defines "noncommunity water supply" only by reference to the definition of that term contained in title 40 of the Code of Federal Regulations, section 141.2 (1992 and as subsequently amended). The Safe Drinking Water Act, Minn. Stat. § 144.383(a), also references the same federal regulation in defining the scope of the Commissioner's power with respect to "nontransient noncommunity water systems." The current version of the cited federal regulation defines "noncommunity water system" as "a public water system that is not a community water system." The rule goes on to state, "A non-community water system is either a ''transient non-community water system (TWS)' or a 'non-transient non-community water system (NTNCWS).'" The terms "non-transient non-community water system" and "transient non-community water system" are later defined in the same code provision; the only difference between them are that the non-transient system regularly serves at least 25 of the *same* persons over 6 months per year, and the transient system does not.[68] Therefore, the federal rule does not provide support for the inclusion of the open-ended list in the MDH's proposed rules, and the Department has not demonstrated the need for or reasonableness of the second sentence of the proposed definition.

67. To remedy the defect found in the second sentence, the Department can either delete that sentence or clarify the language to eliminate the vagueness. If the MDH chooses to clarify the sentence, and if the MDH intended that the criteria set forth in the first sentence be met by the water systems serving all of the listed entities, it could substitute language similar to the following: "The following are deemed to be noncommunity water systems: any water system meeting the criteria identified above that serves churches, schools, resorts, parks, camps, rest areas, or businesses." The deletion of the second sentence or addition of the suggested language will correct the defect and clarify the intent of the proposed rule. Neither of the options to correct the defect will result in rule language that is substantially different from the rule as originally proposed.

Subpart 41f – Scrap Yard

68. Under proposed subpart 41f, the term "scrap yard" is defined to mean "an establishment, place of business, or place of storage or deposit that is maintained, operated, or used for storing, keeping, buying, or selling scrap, junk, or waste metal, including, but not limited to, automobiles, trucks, tractors, farm equipment, industrial equipment, containers, and appliances where the total scrap metal stored is greater than nine tons or consists of more than five motor vehicles."

69. The Department explained in the SONAR that the proposed definition of "scrap yard" in the proposed rules was needed for the following reasons:

> [The] proposed amendment to part 4725.4450, subpart 1, item E, subitem (21), adds an isolation distance between a water-supply well and a scrap yard. This proposed definition is being added to define "scrap yard."

[68] 40 C.F.R. § 41.2.

> Scrap yards, particularly those that accept automobiles or other power equipment containing gasoline, antifreeze, and other petroleum products, represent a source of contamination for a well. The proposed definition is taken from Dakota County Solid Waste Management Ordinance 110, section 2.99.[69]

70. By stating that the types of scrap, junk, or waste metal encompassed by the definition *"includes but is not limited to* automobiles, trucks, tractors, farm equipment, industrial equipment, containers, and appliances . . . ," this portion of the proposed rule incorporates an open-ended list that creates impermissible vagueness in the rule (as explained more fully in Finding 64 above). To correct this defect, the Administrative Law Judge suggests that the MDH either delete the phrase "including but not limited to automobiles, trucks, tractors, farm equipment, industrial equipment, containers, and appliances" from the rule, or revise the definition to state that "scrap yard" means "an establishment, place of business, or place of storage or deposit that is maintained, operated, or used for storing, keeping, buying, or selling scrap, junk, or waste metal obtained from automobiles, trucks, tractors, farm equipment, industrial equipment, containers, appliances, or similar items, where the total scrap metal stored is greater than nine tons or consists of more than five motor vehicles." Deletion of the clause or modifying the language as suggested will serve to clarify the activities that fall within the definition of "scrap yard" and will cure the vagueness defect of the original language. The deletion of the clause or modification of the language to correct the defect will not render the rule substantially different from the rule as originally proposed.

71. The proposed definition, as modified to correct the defects noted by the Administrative Law Judge, has been shown to be needed and reasonable to describe the operations that will qualify as a "scrap yard" and be subject to the isolation distances required by the rules.

Proposed Rule Part 4725.0200 – Application to All Wells and Borings

72. Part 4725.0200 of the existing rules states that Chapter 4725 applies to all wells and borings except exploratory borings (which are governed by Chapter 4727) and those wells and borings specifically exempted in Chapter 103I of the Minnesota Statutes. It also specifies that the "owner of a well or boring is bound by all of the provisions of Chapter 4725 which relate to location, construction, maintenance, and sealing of wells and borings." The proposed rules would add several new subparts to the existing rule provisions. Subpart 3 of the proposed rules would describe the responsibilities of licensees or registrants to provide accurate and truthful information to the Commissioner of Health and verify information and investigate conditions to comply with the requirements of Chapter 4725, including the location of contamination sources. Subpart 4 describes the Commissioner's right of access to information and property. Subpart 5 states that Chapter 4725 is applicable within political subdivisions regulating construction, repair, or sealing or wells or elevator borings where the Commissioner has

[69] SONAR at 37. The definition of "scrap yard" is currently contained in section 2.97 of Dakota County Solid Waste Management Ordinance 110.

delegated authority. It further notes that local delegated authorities are not precluded from adopting ordinances that are consistent with or more restrictive than Chapter 4725.

Subpart 4 – Access to information and property

73. Subpart 4 of the proposed rules specifies that, "Under Minnesota Statutes, section 144.99, subdivision 2, the commissioner may examine records or data of any person subject to regulation under Minnesota Statutes, chapter 103I, and may enter property for the purpose of taking an action authorized under statute or rule, or other actions listed in Minnesota Statutes, section 144.99, subdivision 1."

74. The statutory provisions cited in subpart 4 relate to the Department's authority to enforce the Well Code and other statutes. Subdivision 1 of Minnesota Statutes, Section 144.99, specifies, among other things, that the provisions of Chapter 103I and "all rules, orders, stipulation agreements, settlements, compliance agreements, licenses, registrations, certificates, and permits adopted or issued by the department [of health] or under any other law now in force or later enacted for the preservation of public health may, in addition to provisions in other statutes, be enforced under this section." Subdivision 2 of the same statute states that the Commissioner of Health "or an employee or agent authorized by the commissioner, upon presentation of credentials, may: (1) examine and copy any books, papers, records, memoranda, or data of any person subject to regulation under the statutes listed in subdivision 1 [which specifically includes Chapter 103I]; and (2) enter upon any property, public or private, for the purpose of taking any action authorized under statutes, rules, or other actions listed in subdivision 1 including obtaining information from a person who has a duty to provide information under the statutes listed in subdivision 1, taking steps to remedy violations, or conducting surveys or investigations."

75. Several provisions in Chapter 103 also recognize the Department's right to inspect documents, review data, obtain samples, and gain access to well and boring sites:

- The Commissioner "may *inspect, collect water samples, and have access, at all reasonable times, to a well or boring site,* including wells or borings drilled, sealed, or repaired."[70]

- The Commissioner "may order a property owner to take remedial measures, including making repairs, reconstructing, or sealing a well or boring according to provisions of this chapter. The order may be issued if the commissioner determines, *based on inspection of the water or the well or boring site or an analysis of water from the well or boring*, that the well or boring: (1) is contaminated or may contribute to the spread of contamination; (2) is required to be sealed under this chapter and has not been sealed according to provisions of this chapter; (3) is in a state of disrepair so that its continued existence endangers the quality of the

[70] Minn. Stat. § 103I.101, subd. 4 (emphasis added).

groundwater; (4) is a health or safety hazard; or (5) is located in a place or constructed in a manner that its continued use or existence endangers the quality of the groundwater."[71]

- With respect to exploratory boring procedures, the Commissioners of Health and Natural Resources, as well as the Pollution Control Agency, the community health board, and their officers and employees "*shall have access to exploratory boring sites to inspect the drill holes, drilling, and sealing of the borings, and to sample ambient air and drilling waters, and to measure the radioactivity of the waste drill cuttings* at the drilling site at the time of observation." The statute also states that the Commissioner of Health "may, if necessary, *inspect data* [obtained from exploratory borings] *before its submission* [to the Department of Natural Resources] under section 103I.605."[72]

- Section 103I.621, relating to permits for groundwater thermal exchange devices, states that, "[a]s a condition of the permit [for the reinjection of water by a properly constructed well into the same aquifer from which the water was drawn for the operation of a groundwater thermal exchange device], an applicant must agree to *allow inspection by the commissioner during regular working hours for department inspector*." The statute also specifies that "small systems are *subject to inspection twice a year*" and "larger systems are *subject to inspection four times a year,*" and requires that closed systems "*must be constructed to allow an opening for inspection by the commissioner*."[73]

- Section 103I.641, relating to vertical heat exchangers, also requires that, "[a]s a condition of the permit, the owner of the property where the vertical heat exchanger is to be installed must *agree to allow inspection by the commissioner during regular working hours of Department of Health inspectors*."[74]

76. In industries and operations that are subject to pervasive regulation by the government, the U.S. Supreme Court and the Minnesota courts have recognized that warrantless searches may be a legitimate enforcement tool of administrative agencies. As the U.S. Supreme Court explained in *New York v. Burger*:

> Because the owner or operator of commercial premises in a "closely regulated" industry has a reduced expectation of privacy, the warrant and probable-cause requirements, which fulfill the traditional Fourth Amendment standard of reasonableness for a government search . . . have lessened application in this context. Rather, we conclude that, as in

[71] Minn. Stat. § 103I.231(a) (emphasis added).
[72] Minn. Stat. § 103I.601, subds. 5 and 7 (emphasis added).
[73] Minn. Stat. § 103I.621, subds. 1(b)-(e) and 3 (emphasis added).
[74] Minn. Stat. § 103I.641, subd. 3(b) (emphasis added).

> other situations of "special need," . . . where the privacy interests of the owner are weakened and the government interests in regulating particular businesses are concomitantly heightened, a warrantless inspection of commercial premises may well be reasonable within the meaning of the Fourth Amendment.[75]

The Court did, however, require that such inspections satisfy three criteria:

> This warrantless inspection, however, even in the context of a pervasively regulated business, will be deemed to be reasonable only so long as three criteria are met. First, there must be a "substantial" government interest that informs the regulatory scheme pursuant to which the inspection is made. . . . Second, the warrantless inspections must be "necessary to further [the] regulatory scheme." . . . Finally, "the statute's inspection program, in terms of the certainty and regularity of its application, [must] provid[e] a constitutionally adequate substitute for a warrant." . . . In other words, the regulatory statute must perform the two basic functions of a warrant: it must advise the owner of the commercial premises that the search is being made pursuant to the law and has a properly defined scope, and it must limit the discretion of the inspecting officers. . . . To perform this first function, the statute must be "sufficiently comprehensive and defined that the owner of commercial property cannot help but be aware that his property will be subject to periodic inspections undertaken for specific purposes." . . . In addition, in defining how a statute limits the discretion of the inspectors, we have observed that it must be "carefully limited in time, place, and scope."[76]

The Minnesota courts have approved application of the three-factor test set forth in the *Burger* opinion.[77]

77. It is likely that the area of wells and borings would be viewed as an area subject to pervasive regulation.[78] It seems apparent that the first two criteria set forth in

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[75] 482 U.S. 691, at 702-03 (1987) (citations omitted).

[76] *Id*.

[77] *State v. Krenz*, 634 N.W.2d 231 (Minn. App. 2001); *see also State v. Larsen*, 650 N.W.2d 144 (Minn. 2002).

[78] Employing an analysis similar to that discussed in the *Burger* case, this conclusion seems likely because the Minnesota laws and rules regulating wells and borings are extensive; a license is required for those who construct, modify, repair, or seal wells or borings; a registration is required for those who are monitoring well contractors; examinations and fees are required; licensed and registered individuals must make records and equipment available for inspection; notification of proposed wells and borings must be provided to the Commissioner of Health and permits must be obtained; verified reports must be submitted to the Commissioner after completion or sealing of a well or boring; minimum standards have been established for the design, location, construction, repair, and sealing of wells and borings; the Commissioner may apply to district court for a warrant authorizing seizure and impoundment of drilling machines or hoists by persons who operate without a proper license or registration; and persons who fail to comply with the statutes and rules are subject to criminal penalties, disciplinary action against their

Burger are met here because a substantial government interest—the interest in protecting public health and the water supply—informs the regulatory scheme relating to wells and borings under which inspections are made,[79] and warrantless inspections of documents and drilling sites are necessary to further the regulatory scheme because problems with wells and borings may be difficult to detect apart from such inspections. Regarding the third *Burger* criterion, the enabling statutes explicitly limit the discretion of inspecting officers.

78. As a general matter, subpart 4 of the proposed rules accurately reflects the inspection authority provided in the statutes, and the Administrative Law Judge concludes that the language of the proposed rule is not defective. However, the Administrative Law Judge recommends that the MDH consider revising the rule somewhat to ensure that the discretion of Department inspectors is appropriately limited and the exercise of their authority under the rule is consistent with relevant case law and constitutional principles. The inclusion of additional language regarding the nature of the records and data that may be examined and the property that may be entered for carrying out the actions authorized by statute would help to ensure that the rule is applied in a consistent fashion by Department employees. The Department could, for example, revise the language of the proposed rule to state:

> The Commissioner or an employee or agent authorized by the commissioner, upon presentation of credentials, may examine records or data related to matters governed by Minnesota Statutes, Chapter 103I and Minnesota Statutes, Section 144.99, of any person subject to regulation under Minnesota Statutes Chapter 103I and may enter property to examine such records and data, inspect equipment and material used in performing wells and borings work, obtain and analyze water, air, and waste drill cuttings, and inspect drill holes and drilled, sealed, or repaired wells and borings, for the purpose of taking an action authorized under statute or rule or otherwise identified in Minnesota Statutes, section 144.99, subdivision 1, relating to the enforcement of this chapter. This authority shall be exercised during regular working hours of Department of Health inspectors with respect to inspections of vertical heat exchangers and groundwater thermal exchange devices, and at reasonable times in all other cases.

The proposed language would clarify that agents and employees of the Department may conduct inspections if appropriately authorized to do so by the Commissioner, consistent with Minn. Stat. § 144.99 and Chapter 103I; would identify in greater detail the types of records or data that may be examined; would provide authority to take air, water, and waste drill cutting samples, consistent with Chapter 103I; limit such inspection and entry to "reasonable times" as set forth in Minn. Stat. § 103I.101, subd.

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license or registration, and administrative penalties. *See* Minn. Stat. §§ 103I.001-103I.715 and 144.99; Minn. Rules Chapter 4725.

[79] This is reflected in Minn. Stat. § 103I.001, which declares that Chapter 103I "is intended to protect the health and general welfare by providing a means for the development and protection of the natural resource of groundwater in an orderly, healthful, and reasonable manner."

4, unless the inspection falls under Minn. Stat. §§ 103I.621 and 103I.641 relating to vertical heat exchangers and groundwater thermal exchange devices; provide a link between the nature and location of inspections and the purposes of the rule (that is, to examine records and data relating to wells and borings, to inspect equipment and material used in performing wells and borings work, and to inspect installed or sealed wells and borings themselves); and clarify the scope of the inspections authorized by the rule by specifying that their purpose must relate to the enforcement of Chapter 4725. These modifications would clarify the circumstances under which the Department would examine records or data or enter property, and would be consistent with relevant case law. If accepted by the Department, the new language would not result in a substantial change to the rule as originally proposed.

Proposed Rule Part 4725.0250 – Enforcement

79. The proposed rules contain a new provision relating to enforcement options available to the Commissioner of Health. Subpart 1 of proposed rules sets out the enforcement options that are available to the Department under Minn. Stat. Chapters 14 and 103I, and Minn. Stat. §§ 144.99 and 144.992. Subpart 2 states that the person responsible for creating a violation of Chapter 4725 is responsible for correcting the violation. Subpart 3 establishes a time for completing a correction of a violation of Chapter 4725. Each subpart will be discussed separately below.

Subpart 1 – Enforcement Actions

80. Subpart 1 of the proposed rule lists the following actions that the Commissioner of Health may take to address violations: issuing correction orders; issuing administrative penalty orders requiring a violation to be corrected and assessing a monetary penalty; bringing an action for injunctive relief in district court; issuing cease and desist orders; denying an application or refusing to renew a license, registration or certificate; suspending, revoking, or imposing limitations or conditions on a permit, certification, license, or registration; enforcing the requirements of a stipulation agreement, settlement, or compliance agreement; using the license or registration bond to compensate persons who are injured or suffering financial loss due to the failure of a licensee or registrant to properly perform duties; requesting prosecution by a county attorney; impounding a drilling machine or hoist used by an unlicensed or unregistered operator; and using any other remedies afforded by law or rule. In support of this rule part, the Department simply noted in the SONAR that the rule listed enforcement options available to the Commissioner of Health under Minnesota Statutes Chapters 103I and 14, and Minnesota Statutes Sections 144.99 and 144.992.[80]

81. The Salverdas objected to the Department's use of fines to address violations of the Well Code. They recommended that the rules instead follow a system

[80] SONAR at 41.

of progressive discipline, starting with notice of violations, followed by suspension of the contractor's license.[81] The Department responded, in part, that:

> The laws provide various mechanisms for achieving compliance, since the nature of the violations and the penalties are highly variable. Approximately one-third of the department's enforcement actions are taken against persons who do not have a license to suspend. Violations vary in seriousness from relatively minor paperwork errors, to serious and willful acts that endanger public health and safety. The range of enforcement mechanisms allows the penalty to reflect the violation. The goal is to educate, gain compliance, and modify behavior when needed, not to put a company out of business, except as a last resort. The department conducts over 200 well-related enforcement actions each year with typically ten or less resulting in a fine. Suspension or revocation of a license is a very serious undertaking with serious legal and financial ramifications for the business, public, and the department.[82]

82. The statute indicates that issuance of an administrative penalty order with a monetary penalty attached is one of several possible enforcement methods available to the Commissioner. Neither Chapter 103I nor chapter 144 requires that the Department apply a system of progressive discipline. Moreover, the statutes provide guidance regarding the factors to be considered by the Commissioner in setting the amount of a penalty; require that particular procedures be followed if an APO is issued; allow the respondent to request an expedited administrative hearing before an Administrative Law Judge to challenge an APO; and authorize the Administrative Law Judge to recommend a change in the amount of the proposed penalty if the amount is determined to be unreasonable.[83]

83. The Administrative Law Judge concludes that subpart 1 of the proposed rule is not in conflict with the governing statutes, and that the Department has demonstrated the need for and reasonableness of the language of the proposed rules. Although subpart 1 states that the Commissioner "may" take one or more of the listed enforcement actions for a violation of the rules, the use of that term is permissible in this context because it reflects the inherent discretion that is exercised by agencies in enforcement actions. The enforcement actions listed in the proposed rules are consistent with the authority provided by Minn. Stat. §§ 103I.525, subd. 5, 103I.531, subd. 5, 103I.535, subd. 5, 103I.541, subd. 3, 103I.711, 103I.715, 144.99, and 144.992.

Subpart 2 – Responsibility for Correction

84. Subpart 2 of the proposed rules would add a new provision stating that the "person responsible for creating a violation of this chapter is responsible for correcting

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[81] Testimony of William and Wesley Salverda at Public Hearing; Letter from William Salverda (Jan. 21, 2008)..

[82] MDH Post-Hearing Comment at 5.

[83] Minn. Stat. §§ 144.99-144.991.

the violation." Specifically, the rule states that a licensee or registrant is responsible for correcting a violation that they "created or constructed," and that the licensee or registrant who filed the notification or obtained the permit is responsible for the compliance of the well or boring with Chapter 4725 even if the actual construction of a well or boring is subcontracted to another person. Finally, the proposed rule specifies that a well or boring that cannot be corrected must be sealed and a complying well or boring must be constructed, unless the owner, responsible party, and Commissioner agree otherwise.

85. In the SONAR, the Department explained that it proposed subpart 2 in order to clarify the responsibilities of a person who creates a violation of the rules. The Department noted that, in some cases, permanently sealing a noncomplying well or boring may be the only possible or cost-effective way to correct a violation. Because sealing a noncomplying well or boring would leave the owner without a water supply (or other asset provided by the well or boring), the Department concluded that "[i]t is reasonable to require the person who committed the violation, and who put the well and owner at risk, to provide a complying well or boring to the owner." The Department also determined that it was reasonable to require the licensee who obtained a permit to be responsible for compliance when a portion of the work was subcontracted to another because "the licensee who files the notification or obtains a permit is licensed and bonded, and the state does not have control over who physically does the work." [84]

86. The Salverdas objected to licensees being held responsible for violations for an unlimited period of time.[85] The Department replied that:

> Most enforcement actions, particularly escalated enforcement actions, are to correct a sanitary violation that is still occurring. The well rules are not retroactive. Enforcement actions are only taken for violations of rule, not consumer issues, complaints, aesthetic water quality, financial disputes, or consumer issues not related to a rule violation. If a well is constructed with substandard casing, is not grouted, or is too close to a septic system, time does not eliminate the hazard, and may in fact increase it. The well owner is left with a noncomplying and potentially unsafe well. The evidence is rarely affected by time. We believe a well contractor should be responsible for completing work in compliance with the minimum standards of the rules.[86]

87. The Department has provided a rational basis for its decision to require well drillers to correct defective work to which the proposed rules apply and not to include a time limitation on such liability in the proposed rules. The Department has demonstrated that subpart 2 of the proposed rule, including the requirement that

[84] SONAR at 41-42.
[85] Testimony of William and Wesley Salverda at Public Hearing; Letter from William Salverda (Jan. 21, 2008).
[86] MDH Post-Hearing Comment at 5-6.

licensees or registrants remain responsible for correcting violations, is needed and reasonable.

Subpart 3 – Time of Correction

88. Subpart 3 requires corrections of violations of Chapter 4725 to be completed within 30 days of the notice of violation, unless the parties otherwise agree or a variance is granted. The Salverdas maintained that specific correction orders were unjustified. They also contended that the Department has engaged in selective enforcement.[87] The Department disputed the Salverdas' assertions about the justification for the issuance of particular corrective orders and pointed out that this issue is primarily related to policy or the facts of specific cases rather than the proposed rules.[88] The Administrative Law Judge agrees that this rulemaking proceeding is not the proper forum for consideration of whether the Department has engaged in selective enforcement rather than applying its rules in an even-handed manner. The issue of whether selective enforcement has occurred must be addressed on a case-by-case basis in the context of an appeal of a specific MDH order.

89. The Administrative Law Judge concludes that the Department has demonstrated the need for and the reasonableness of part 4725.0250 of the proposed rules to address violations of these rules.

Proposed Rule Part 4725.0410 – Variance

90. Proposed rule 4725.0410 adds a substantial amount of new language to the existing rule relating to variances. The proposed rule provisions would establish additional requirements for variances to Chapter 4725 in certain circumstances. Among other things, the proposed rules specify that a variance must be applied for and granted prior to commencement of the activity for which the variance is requested, and the construction and conditions of a granted variance must generally be completed within 18 months of the date the variance was approved (unless otherwise specified in the variance). The proposed rules also impose some additional requirements with respect to construction, repair, or sealing variance requests and add provisions relating to emergency variances and variances to be placed on real property deeds.

91. Subpart 5 of the proposed rules governs emergency variances. The proposed rules incorporate much of the language of existing rule part 4725.1838. While the language of the proposed rule is not defective, the Administrative Law Judge suggests that the second sentence be deleted because it is repetitive of language that appears in the opening paragraph of existing part 4725.1838.

92. Items A through F of subpart 5 set forth additional procedures that apply to applications for emergency variances and work performed under such variances. As proposed, item F prohibits the issuance of an emergency variance to "persons who

[87] Testimony of William and Wesley Salverda at Public Hearing; Letter from William Salverda (Jan. 21, 2008).
[88] MDH Post-Hearing Comment at 5.

violate the emergency variance requirements." Although the language of item F is not defective, the Administrative Law Judge finds that the use of the present tense is somewhat confusing in this context, and suggests that the Department consider modifying the language to instead state that the Commissioner shall not issue an emergency variance to persons "who have violated" the emergency variance requirements. Such a modification would serve to clarify that the rule is intended to deny variances to those with a history of past violations. If accepted by the Department, this modification would not render the rules substantially different from the rules as originally proposed.

93. The Department has demonstrated that part 4725.0410 is needed and reasonable to provide specific criteria for variances related to wells and borings.

Proposed Rule Part 4725.0550 – Certified Representative or Individual Well Contractor

94. Proposed rule 4725.0550 establishes the process by which an individual may apply to be certified as a representative of a licensee or registrant or an individual well contractor. Subpart 3 sets forth the qualifications that a certified representative and individual well contractor must possess as well as their responsibilities and other requirements. Item C of subpart 3 of the proposed rules, as amended, states that the certified representative must be responsible for conducting all operations under the representative's supervision and as delegated by the licensee or registrant, "including but not limited to: (1) supervision of work to ensure compliance with this chapter; and (2) completion and signing of permit applications, notifications, variance applications, construction records, and sealing records." As explained in Findings 64 and 70 above, the use of the "including, but not limited to" language causes the proposed rule to be impermissibly vague and constitutes a defect in the proposed rule. To correct this defect, the Administrative Law Judge recommends that subpart 3, item C be modified to state as follows:

> The certified representative must: (1) supervise work to ensure compliance with this chapter; (2) complete and sign permit applications, notifications, variance applications, construction records, and sealing records; and (3) be responsible for conducting all operations under the representative's supervision and as delegated by the licensee or registrant in accordance with Minnesota Statutes, chapter 1031, and this chapter.

95. The suggested language improves the readability of the rule and avoids ambiguity regarding the responsibilities of the certified representative, while being consistent with the Department's objectives as reflected in the rules as originally proposed. The language of the rule, as modified, is not substantially different from the language of the rule as originally proposed and has been shown to be needed and reasonable.

Proposed Rule Part 4725.0650 – Experience Requirements; Certified Representative and Individual Well Contractor

Subpart 1

96. Proposed rule 4725.0650 establishes standards for the experience applicants must have to become a certified representative or to hold an individual well contractor license. Under subpart 1 of the current rules, anyone applying for a license to be an individual well contractor or a representative of a well contractor must have four years of experience. A year of experience is currently defined to be a year in which the applicant personally and under the supervision of a licensed well contractor, constructed and sealed wells and installed pumps for 1,000 hours and constructed a minimum of five wells or at least one or more multiple-cased wells with an outer casing diameter of ten inches or more and a well depth or cumulative depth exceeding 700 feet.

97. The new standard set forth in subpart 1 of the proposed rules for well contractor certified representatives and individual well contractors specifies that the 1000 hours worked per year of experience "must include drilling water-supply wells, grouting, sealing wells, repairing wells, installing pumps, disinfecting wells, and completing well construction and sealing records" and construction of a minimum of ten water supply wells or one or more multiple cased water supply wells meeting the diameter and depth requirements of the existing rules. The proposed rules create an exception for applicants with experience prior to 2006 and continue the existing requirement of construction of a minimum of five water supply wells per year for such applicants. In addition, the proposed rules state that one year of experience will be granted to an applicant who has successfully completed one year of education in well construction practices at an accredited institution, and a maximum of two years of experience will be granted to an applicant who has successfully completed an associate or technical degree in well construction practices at an accredited institution.

98. In the SONAR, the Department indicated that the proposed amendments are designed to increase the experience requirements and to allow formal well construction education in lieu of some practical experience. The Department asserted that the requirements in the existing rules are minimal compared to the requirements of each limited or specialty certification. The Department indicated that the amendment will ensure that applicants are familiar with the range of activities regulated under the statute and rule and will avoid the situation in which "applicants have appeared before the advisory council with 1000 hours of experience per year, but only in one activity, such as drilling, without doing pump work, performing disinfections, or completing records."[89] The SONAR provided the following explanation regarding the proposed rules' increase in the minimum number of wells that must be drilled each year from five to ten:

> When the five well per year requirement was enacted in 1974, most wells were constructed by the cable tool method. It would take a few days to a

[89] SONAR at 46.

> few weeks, to drill just one well. Today, with rotary drilling, a well can often be drilled in one-half day. Item C amends existing language to still allow for person [sic] to qualify drilling large diameter, deep wells that typically take considerable time to drill, often by the cable tool method. This proposed amendment to increase the amount of experience reflects the change in drilling technology and experience.[90]

99. William Salverda objected to increasing the minimum number of wells required from five to ten as having an unfair impact on small drillers. He also maintained that the number of wells drilled was not related to the quality of those wells. Mr. Salverda took issue with the information contained in the SONAR about changes in drilling technology. He asserted that wells require at least one day to drill, and contended that grouted wells require several days to complete. He also emphasized that well inspectors are allowed to inspect wells even if they have no practical experience in well drilling.[91]

100. The Department responded to these objections as follows:

> The department has observed contractors drilling two or even three wells per day. Increasing the minimum number of wells drilled for certification is an attempt to keep up with current technology. Even considering that some wells take a day or several days to drill, a person drilling ten wells per year now, will generally have less drilling experience than a person drilling five wells in 1974. The increase is not an attempt to limit small well drillers, and largely is a response to certification candidates coming before the Advisory Council on Wells and Borings for an oral exam who were found by the council to lack sufficient knowledge and experience. The department agrees that a minimum number of wells may not always impact the quality of work. So in addition, the rules establish minimum hourly and subject experience, as well as passing an examination. Continuing education is required on an annual basis, and the department conducts random inspections of work performed by contractors. Department inspection staff consists of well inspectors and well standards representatives who are all former drillers; and hydrologists who are degreed in geology, engineering, public health or other degrees. Some hydrologists also have well drilling experience particularly in the environmental or geotechnical fields. The work of the department is much broader than just drinking water well construction including other wells and borings such as elevator borings and mineral and petroleum exploration; investigation of waterborne disease outbreaks; geologic studies; enforcement actions; and education and training.[92]

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[90] SONAR at 47.

[91] Testimony of William and Wesley Salverda at Public Hearing; Letter from William Salverda (Jan. 21, 2008).

[92] MDH Post-Hearing Comment at 6.

101. The Department has provided a rational explanation for its decision to amend the experience requirements to ensure that applicants will be familiar with a range of basic drilling activities and will either have experience in constructing a minimum of ten water-supply wells per year or meet alternative rule requirements. The Administrative Law Judge concludes that the Department has shown that the experience standards contained in subpart 1 of the proposed rules are both reasonable and necessary to ensure that an applicant is familiar with the range of activities regulated under the statute and rules relating to wells and borings, has had sufficient experience with actual construction of wells and borings, and is able to receive proper credit for knowledge gained in postsecondary institutions.

102. Although there is no defect in the language of the proposed rule, the Administrative Law Judge suggests that the Department consider revising the language stating that "one year of experience will be granted" to an applicant who has completed one year of education in well construction practices at an accredited postsecondary institution, and "a maximum of two years of experience will be granted" to an applicant who has successfully completed an associate or technical degree in well construction practices. The Administrative Law Judge recommends that this language be revised slightly to state, "An applicant shall be deemed to have one year of experience if the applicant has successfully completed . . ." and "An applicant shall be deemed to have up to a maximum of two years of experience if the applicant has successfully completed . . . ." If the Department elects to modify the proposed rule in the manner suggested by the Administrative Law Judge, the modification will not render the rule as finally proposed for adoption substantially different from the language of the rules as originally proposed.

Proposed Rule Part 4725.2020 – Interconnection of Aquifers Prohibited

103. The proposed rules would make substantial amendments to the existing rule prohibiting the interconnection of aquifers. The current rules specify that a well or boring must not be constructed to interconnect aquifers separated by a confining layer. The proposed rules would amend subpart 1 to also prohibit a well or boring from being constructed to "interconnect an unconsolidated aquifer and a bedrock aquifer."

104. In the SONAR, the Department indicated that this rule part is designed to "protect uncontaminated aquifers from surface contaminants or water entry from contaminated aquifers." The MDH further stated that the proposed amendments clarify the existing rule and also provide "a mechanism for less restrictive requirements where site-specific conditions allow." The Department contends that preservation of confining layers is important to:

- Prevent surface contaminants from directly entering deeper aquifers.

- Slow the downward movement of percolating water to allow for the filtering and/or breakdown of contaminants before they reach aquifers used for drinking water.

• Prevent bore hole collapse due to cascading water.

• Prevent natural contaminants such as sulfate, arsenic, or radon, from spreading between aquifers.

• Prevent the waste of groundwater, dewatering of aquifers, erosion, and subsidence, due to uncontrolled artesian flows.[93]

The Department asserted that it is important to prohibit interconnection of an unconsolidated aquifer and a bedrock aquifer because "[h]ydrogeology, water flow characteristics, and water chemistry of aquifers in unconsolidated materials are quite different from aquifers in bedrock, even if a distinct confining layer does not exist." The MDH contended that separation of these two different types of aquifers is important for the reasons identified above.[94]

105. The Department noted that not every area needed to have these restrictions imposed, stating that:

> The sedimentary rocks of southeastern Minnesota were deposited in a shallow inland sea from a billion to 300 million years ago. From that time to the present, the rocks have been subjected to weathering and most recently in geologic time, glaciation. In some locations where a confining layer is closest to the land surface, 300 million years of erosion, weathering, fracturing, and other geologic processes have destroyed some of the confining units ability to resist water movement. The proposed amendment establishes the ability to study, map, and modify the rule requirement in those discrete areas where the regional confining layer does not function normally.[95]

106. Subpart 1a of the proposed rules sets forth an exception for these areas:

> The provisions of this subpart do not apply in an area designated on a map published by the commissioner. The commissioner may establish less stringent standards than identified in this subpart where protective conditions exist or unique characteristics of the confining layer exist, including low permeability overlying materials, favorable groundwater gradients, the presence of fractures or permeable horizons in the confining layer, or reduced contaminant loading in recharge areas.

107. The Department has demonstrated that it is reasonable and necessary to apply less stringent requirements in certain areas, and the proposed language appropriately limits the agency discretion in establishing such areas. Although the language of the proposed rule is not defective, the Administrative Law Judge suggests that the Department consider revising this portion of the proposed rules to clarify the

[93] SONAR at 61.
[94] SONAR at 61.
[95] SONAR at 62.

connection between the map to be developed by the Commissioner upon which the exempt areas are to be listed and the process that presumably results in that map. This could be accomplished by deleting the first sentence, retaining the second sentence, and adding a third sentence stating, "The areas subject to the less stringent standards under this provision will be designated on a map published by the commissioner, along with the standards that do apply to those areas." This modification, if accepted by the Department, would serve to clarify this rule provision and would not render the rule substantially different from the rule as originally proposed.

Proposed Rule Part 4725.2250 – General Casing Requirements

108. Proposed rule 4725.2250 amends the requirements for the pipe (known as casing) inserted in the well or boring. The proposed rules refer to material standards for each type of approved casing. Under the proposed rules, poured concrete and concrete curbing would no longer be approved for use as casing. The proposed rules would, among other things, require casing to be watertight, impose requirements for casing joints, mandate the use of new casing under certain circumstances, and set forth specific requirements relating to temporary casing, inner and outer casing, outer casing in unconsolidated materials, casing inside diameter, casing height, multiple casings, casing reduction and enlargement, casing drive shoes, and temporary and permanent cap or cover requirements. In the SONAR, the Department indicated that "[i]t is necessary to establish minimum standards for casing to ensure that the material will not corrode or collapse, causing failure of the hole, and will not introduce contaminants or impurities into the groundwater through holes or other defects."[96]

109. Subpart 3 of the existing rule requires that casing used in the permanent construction of a well or boring either be new or salvaged within 120 days of installation and still meet the standards for new casing. The proposed rules amend subpart 3 to require that the new casing used in permanent construction must be produced to "the specifications of this part" and that salvaged casing must be "from the same type of well or boring." in the SONAR, the Department explained that this rule is needed "to prevent the use of defective pipe, sewer pipe, Colbert, used chemical process piping, or other casing, pipe, or tubular goods that may be substandard and fatal, or be coated with chemicals or substances which could leach into the drinking water or groundwater." The Department also pointed out that casing removed from a monitoring or remedial well that was in contact with petroleum would not be appropriately reused in a drinking water well.[97]

110. The Salverdas objected to the provisions of the proposed rules as they apply to outer casing. They asserted that the rules required use of new, or less than 120-day old, 8-inch Schedule 40 casing to prevent collapse. They argued that the proposed rules would preclude the removal and reuse of casing and that these

[96] SONAR at 65.
[97] SONAR at 66.

requirements would add an additional $1,050.00 to the cost of a well.[98] The Department responded that this interpretation of the rule language was incorrect, because installation of outer casing is optional and not required by the rules, and may be removed as set forth in subpart 7. The Department also noted that subpart 7 allows the use of both lighter weight casing and used casing. Where the contractor opts to leave the outer casing in the well or boring or cannot physically remove it, MDH indicated that subpart 9 exempts the casing from the minimum standards, requiring only that the gap be filled with neat-cement grout or cement-sand grout.[99]

111. The Department has demonstrated that the proposed rules relating to casing standards are both needed and reasonable.

112. Subpart 8 of part 4725.2250 modifies the existing annular space requirement between inner and outer casings, from 3.25 inches to 3.0 inches, measured by the largest fixed diameter of equipment placed in the hole. In the SONAR, the Department stated that it is proposing to reduce the requirement from 3.25 inches to 3.0 inches (1.5 inches of space surrounding the inner casing), and to amend the requirement for a larger diameter casing to apply only to casings deeper than 100 feet in order to allow for some casing products that are now in common usage (such as 4-inch inside diameter solvent-molded plastic casing) to be used inside the commonly available 8- inch outer steel casing.[100]

113. The Salverdas recommended reducing the minimum diameter to 2.8 inches to allow 4-inch diameter threaded and coupled casing to be used inside 8-inch diameter casing or a similarly sized open hole. The Department responded as follows:

> Pipe is commonly referred to by its "nominal" size. The convention is that pipe 12 inches and smaller is referred to by the inside diameter, and larger pipe by the outside diameter. Steel pipe is commonly sold in lengths approximately 20 feet long that are connected together either by welding plain pieces of pipe together, or by threaded ends on the pipe connected by threaded couplings. "Four-inch" Schedule 40, welded pipe has an outside diameter of 4.5 inches, while "four-inch" threaded and coupled pipe has an outside diameter of the couplings of 5.2 inches. The inside diameter in both cases is 4.0 inches.[101]

114. The Department has demonstrated that the proposed modifications to the size rule are both needed and reasonable.

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[98] Testimony of William and Wesley Salverda at Public Hearing; Letter from William Salverda (Jan. 21, 2008).
[99] MDH Post-Hearing Comment at 7.
[100] SONAR at 67.
[101] Department Comment at 7.

115. The Salverdas also commented about so-called "Haliburton grouting" and stated that they have encountered poor quality welds when performing maintenance or replacement work. The Department responded to these comments as follows:

> The rules require wells to be grouted by one of two general methods. Either grout is pumped down the inner casing, sometimes generically, but at times erroneously referred to as "Haliburton grouting," and up the space between the casings or between the casing and an open hole; or by inserting a small diameter grout, or "tremie" pipe between the casings or between the casing and open hole, and pumping grout through the tremie pipe. Even though the "Haliburton" method of grouting does not practically require a minimum space between casings, minimum annular space requirements have been established in some critical circumstances such as between casings (this subpart), bedrock wells with casing extending into bedrock (part 4725.3050), high flow wells and borings (part 4725.3450) and in limestone or dolomite (part 4725.4250) to assure that there is sufficient space to insert a tremie pipe. Grouting through the casing is a good method of grouting only if the grout can be pumped in a single continuous operation until the grout appears at the surface. If grouting is interrupted due to a mechanical breakdown, cement supply interruption, grout washout due to a high flow situation, or grout loss to a limestone cave, cement will set and plug the bottom. If the annular space is too small to insert a tremie pipe from the top, there is no practical way to complete grouting of the well. [102]

116. The Department also explained that the varying diameters of pipes require the minimum proposed space to prevent tremie pipes from becoming lodged in that space, especially where wells are deep or not straight. Regarding welding issues, the Department noted that:

> It should also be noted that should a casing, weld, or thread defect exist, the grout will provide some degree of protection. The department has discussed the issue of establishing more comprehensive welding standards at district meetings and with the Advisory Council on Wells and Borings. While it was acknowledged that some poor welding occurs, there was no consensus on establishing stricter standards, and very little support for requiring certified welders. Education was generally recommended instead of regulation. [103]

117. The Department has shown that the proposed rules relating to general casing requirements are needed and reasonable to establish minimum standards to protect against corrosion or collapse. As noted above, agencies are entitled to make choices between possible approaches so long as its choice is rational, and it is not the proper role of the Administrative Law Judge to determine which alternative presents the

[102] *Id*. at 7-8.

[103] Department Comment at 8.

"best" approach. Although the proposed rules are not rendered defective by their failure to address welding standards, the Department is encouraged to consider this comment with respect to any future rulemaking on this subject.

Proposed Rule Part 4725.3050 – Grouting

118. The proposed rules seek to amend part 4725.3050 of the existing rule, which sets forth requirements for the use of grouting to fill the annular space between the casing and the hole drilled for the well or boring. The rule part addresses what constitutes approved material and methods for grouting, as well as when and how grout is to be applied in the drilling process, especially in particular formations of rock and confining layers.

Subpart 3

119. The proposed rules would amend subpart 3 of the current rules relating to grouting depth requirements. Under the proposed rules, the minimum grouting depth in unconsolidated materials would be increased from 30 feet to 50 feet. In the SONAR, the Department stated that it "has observed numerous cases of well contamination due to the present 30-foot grouting minimum, which could have been prevented with deeper grouting." The Department stated that "[f]ull length grouting provides the greatest protection, but in some cases may be expensive and technically difficult" and noted that "[e]stablishing a standard based on geology can tailor well construction to existing conditions, but would be difficult to determine until the well is drilled, creating problems for bidding, inspection, and enforcement." The MDH ultimately proposed the increase from 30 to 50 feet "as a compromise" and stated that the rule amendment would "provide increased protection for the well and groundwater, and not substantially increase drilling costs or practical difficulties."[104]

120. Jeff Luehrs, Well Program Manager for the Dakota County Water Resources Department, filed a post-hearing comment supporting the rule revisions proposed by the Department, particularly the increase in the grouting depth requirement, as protective of groundwater resources and public health.[105] The Salverdas objected to the increase in minimum grouting depth. They also commented about shrinkage of bentonite grout, cement grout melting plastic casing, and cement-sand grout, and asserted that drill cuttings are just as effective as grout in sealing the annular space. They urged that well drillers be allowed to use their judgment in applying filler and that variances be granted for a topology described as "water sand."[106]

121. In its post-hearing comments, the Department noted that part of the Salverdas' objection related to existing rule language, which was approved in 1992 over the objections of one of the commentators in this proceeding and is not involved in the

[104] SONAR at 74-75.

[105] Letter from Jeff Luehrs (Jan. 28, 2008).

[106] Testimony of William and Wesley Salverda at Public Hearing; Letter from William Salverda (Jan. 21, 2008).

current rulemaking. The Department stated that bentonite grout is not required to be used but has been allowed since the first well rules were adopted in 1974, and identified several positive attributes of bentonite. The Department asserted that contractors are not precluded under the rules "from placing cuttings below 50 feet and allowing them to settle as long as the process is completed." However, the Department argued that using cuttings in lieu of approved grout above the 50-foot distance results in "problems of higher permeability, settlement, voids, collapse, and bridging" and pointed out that the rule excluding cuttings as an approved grout was found to be needed and reasonable during the 1992 rulemaking proceeding.[107] The Department also explained at length in its post-hearing comments the contamination problems that could be associated with granting an exception for "water sand" and discussed the environmental problems that have resulted because grouting to the 30 foot level (as required under the existing rule) has not been sufficient.[108]

122. The Administrative Law Judge concludes that the Department has demonstrated that the proposed rule is needed and reasonable to support and protect the casing, prevent the collapse of the bore hole, and prevent surface water, gases, or contaminants from entering the groundwater or spreading between aquifers.

Subpart 7

123. The existing rules require in subpart 7, item A, that "[w]hen rock is encountered in the construction of a well or boring, the casing must be equipped with a drive shoe driven firmly into stable rock or the casing must be grouted with neat cement from the bottom of the casing to the top of the rock." The only changes proposed by the Department to this portion of the rules would change the word "rock" to "bedrock" and add cement-sand grout as an additional type of material that can be used, consistent with other amendments to the rule.[109] Prior to the hearing in this matter, Bruce Jagunich, a licensed well contractor, expressed concern that this approach would bypass water on top of the bedrock and add additional expense if hydrofracturing was required. He recommended changing the language in subpart 7(A) to require that the casing must be equipped with a drive shoe "driven to stable bedrock . . . ." The Department responded that:

> Neither the existing nor proposed rules require hydrofracturing. The proposed amendments regulate hydrofracturing only if the contractor and owner choose to hydrofracture. The requirement to drive casing firmly into stable bedrock, or cement the casing into bedrock, has been in the rules since the first rules were adopted in 1974. The rule is proposed for amendment only for minor clarification - changing "rock" to "bedrock," and to allow an additional grout (cement-sand grout) to reduce costs. The purpose of the rule is to obtain a seal into rock so that the well does not leak surface water or sediment, and to prevent water entry from more than

[107] MDH Post-Hearing Comment at 8-9; SONAR at 74.
[108] MDH Post-Hearing Comment at 10-11.
[109] SONAR at 76.

> one aquifer, such as from the overlying glacial sediments into bedrock. However, the rule does not prohibit driving the casing into a fractured bedrock and using the fractured bedrock for a water supply. Mr. Jagunich's suggested language was discussed at the December 18, 2007, meeting of the Advisory Council on Wells and Borings. The council recommended the rule language not be amended. The Department proposes no change to the proposed rule.[110]

124. The record in this matter supports the Department's position that the practices required by the existing rules remain unchanged, except for authorizing the use of less-expensive grouting material. The Department has demonstrated that the clarification of the grouting requirements contained in the proposed rule is both needed and reasonable.

Proposed Rule Part 4725.3650 – Requirements for Designated Special Well and Boring Construction Areas

125. Proposed rule 4725.3650 amends the existing rule requirements that apply to wells that are constructed in areas that are currently designated as "special well construction areas" because of groundwater contamination. The current rules do not regulate borings in these contaminated areas. Under the proposed amendments, the requirements would be extended to encompass borings since "[a] boring penetrates the same geologic formations and contaminants as a well, and has some of the same potential to exacerbate contamination as a well."[111]

Subpart 4

126. Subpart 4 of the rules as originally proposed adds the following new rule language: "The commissioner may require the owner of a contaminated well in a special well and boring construction area to install, use, and monitor a water treatment device." In the SONAR, the Department provided the following supporting information regarding subpart 4:

> Since public water systems do not exist throughout the area [in Washington County where there is trichloroethylene contamination], remediation of the groundwater has not occurred, and obtaining a naturally safe well is problematic, treatment of both existing and new wells may be the only alternative. Subpart 4 acknowledges that in some cases, drilling a contaminated well may be the only option, and that in those cases, treatment and monitoring are necessary to reasonably assure a safe drinking supply.[112]

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[110] Ex. I.

[111] SONAR at 81.

[112] SONAR at 81.

127. In response to a comment from the Minnesota Department of Agriculture, the language was modified by the Department after initial publication of the proposed rules to clarify that this requirement could only be imposed with respect to "newly constructed" wells. The Department also modified the proposed rule to require "an effective" water treatment device in order to clarify the purpose of treatment, as suggested by the Department of Agriculture. The Department declined to adopt other language recommended by the Department of Agriculture that would have required treatment if a well tested "positive" for a contaminant and requiring details of the treatment system in the plan. The MDH explained that it has used the Health Risk Limits and Maximum Contaminant Levels established in Minnesota and federal rules to determine when action is required rather than a "positive" test, and pointed out that the plan submitted by the installer would be submitted and approved prior to construction and before the water quality and treatment requirements were known.[113]

128. Although Subpart 4 states that the Commissioner "may require" the owners of newly constructed wells to install, use and monitor effective water treatment devices, it does not set standards to guide the Commissioner in determining when it is appropriate to issue such a requirement. The absence of language that appropriately limits the agency's discretion in requiring such measures is a defect in the proposed rules. To the correct the defect, the Administrative Law Judge recommends that subpart 4 be revised to incorporate language similar to the following:

> The commissioner shall require the owner of a newly constructed contaminated well in a special well and boring area to install, use, and monitor an effective water treatment device if the commissioner determines that such a device is reasonably necessary to assure a safe drinking water supply or monitor the degree of contamination.

The suggested language provides appropriate guidance for the exercise of the Commissioner's discretion to require the installation of water treatment devices. The last clause of the suggested modification is supported by statements made by the Department in the SONAR as well as the language of existing rule part 4725.3650, subp. 2, permitting the Commissioner to require water quality monitoring if it is needed to determine the degree of contamination of a water supply.

129. The Department has demonstrated that subpart 4, as modified above, is necessary and reasonable to protect the safety of drinking water in situations in which a new well must be drilled in a contaminated area. The modifications proposed by the Department after original publication of the rule and those required to correct the defect in the rule language do not result in a rule that is substantially different from the rule as initially proposed by the Department.

Proposed Rule Part 4725.4250 – Limestone or Dolomite Water-Supply Wells

Subpart 4

[113] Ex. L at 5.

130. Part 4725.4250 of the proposed rules establishes requirements that apply when water-supply wells are drilled into or below limestone or dolomite formations. Subpart 4, Item A, imposes additional requirements when the well is used to provide potable water.

131. The Salverdas maintained that drilling a well in dolomite bedrock should be allowed if the water sampled does not show contamination, regardless of whether or not the formation is covered by 50 feet of coverage by other materials for a 1-mile radius as required by item A.[114] In its post-hearing comments, the Department stated that this requirement has been in the rules since 1974 and was discussed during the 1992 rule hearing.[115] The Department cited a number of studies relating to contamination in limestone and dolomite formations, described the hydrology present in dolomite and limestone formations, and documented instances of illnesses and deaths resulting from contaminants entering discrete water supplies through wells drilled in such formations.[116]

132. The Administrative Law Judge concludes that the Department has demonstrated that, in light of the risks of drilling wells in such formations, water sampling alone does not provide adequate safeguards. The Department has shown that the restrictions set forth in item A restricting dolomite and limestone formation drilling with respect to water-supply wells used to provide potable water are needed and reasonable.

133. Item B of subpart 4 allows the Department to designate areas on a map where the additional restrictions do not apply. As proposed, item B states:

> The conditions in item A do not apply in an area designated on a limestone and dolomite bedrock well construction map published by the commissioner. The commissioner may establish maps in areas of known or suspected contamination, or unique hydrologic or geologic conditions, or in areas where protective conditions exist, including low permeability overlying materials, favorable groundwater gradients, or reduced contaminant loading in recharge areas.

134. Although the language of item B is not defective, the Administrative Law Judge suggests that the Department consider revising this portion of the proposed rules to clarify the connection between the map to be developed by the Commissioner and the standards by which the Department will establish the exempt areas, similar to the

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[114] Testimony of William and Wesley Salverda at Public Hearing; Letter from William Salverda (Jan. 21, 2008).

[115] *See* Minn. R. 4725.3050, subp. 7(C) (3) ("A water supply well used to supply potable water must not be completed in limestone or dolomite rock unless the limestone or dolomite is overlaid by at least 50 feet of unconsolidated material or firm insoluble rock such as sandstone or shale that extends around the well for a one mile radius").

[116] MDH Post-Hearing Comment at 11-13.

recommendation made in Finding 107 with respect to part 4725.2020. If the Department wishes, it could modify item B to include language similar to the following:

> B. The commissioner may establish limestone and dolomite bedrock well construction maps identifying areas of known or suspected contamination, areas with unique hydrologic or geologic conditions, or areas where protective conditions exist, including low permeability overlying materials, favorable groundwater gradients, or reduced contaminant loading in recharge areas. The conditions in item A do not apply in areas designated as approved for drilling on the limestone and dolomite bedrock well construction maps published by the commissioner.

The suggested modification would eliminate any ambiguity in the proposed rules and clarify the connection between the development of the map and the designation of areas that are approved for drilling and therefore exempt from item A. The use of "may" in this context is permissible. If the Department chooses to make this modification in the language of the rule, it will not cause the rule to be substantially different than the rule as originally proposed.

135. The proposed rules have been shown to be needed and reasonable to address requirements for drilling water-supply wells into or below limestone or dolomite. The new language does not result in rule language that is substantially different from that initially proposed by the Department.

Proposed Rule Part 4725.4450 –Water-Supply Well Distances from Contamination Source

136. Proposed rule 4725.4450 designates minimum setback or "isolation" distances between water-supply wells and sources of potential contamination. Minn. Stat. § 103I.205, subd. 6, prohibits a person from placing, constructing, or installing a source of contamination any closer to a well than the isolation distances prescribed by the Commissioner of Health in its rules. As a result, the Department noted in the SONAR that "the rule applies both to the placement of wells near existing sources of contamination, and the placement of contamination sources near existing wells."[117]

137. The existing rule provisions require varying setbacks ranging from 10 feet to 150 feet, depending on the nature of the contamination source. The proposed rules expanded the setback requirement for the most serious contamination sources to 300 feet and added a provision that doubled the setback distance if the well is a "sensitive water-supply well" and the contamination source directly enters the soil.[118]

138. The Salverdas objected to the application of the setback provisions to well drillers, noting that a nonconforming use could be initiated immediately after the well is

[117] SONAR at 92.

[118] As defined in 4725.0100, subp. 43a, a "sensitive water-supply well" is one "with less than 50 feet of watertight casing where the casing does not penetrate a confining layer or multiple layers of confining materials with an aggregate thickness of ten feet or more."

drilled. They argued that well contractors should not be responsible for maintaining isolation distances from contamination sources on neighboring properties. The Department acknowledged that identifying contamination sources was difficult, but contamination sources are unaffected by property lines. The Department reiterated that the licensed well driller was the appropriate person to be responsible for identifying sources of contamination and preventing contamination. The Department also noted that, if a contamination source is installed too close to a well *after* the well is drilled, it is the person installing the contamination source, not the well contractor, who is responsible for compliance with the setback requirements.[119]

139. As originally proposed, the rules specified in subpart 1, item B, subitem 6, that a water-supply well must be no less than 300 feet (or 600 feet with respect to a sensitive water-supply well) from "a liquid manure storage basin or lagoon that does not have a concrete or composite liner according to chapter 7020." Prior to the hearing, a number of commentators, including both the MPCA and the Department of Agriculture, questioned the setback required for liquid manure storage basins or lagoons, noting that there is a difference between liquid and solid manure. The commentators also objected to the rule imposing the same setback requirement for unlined and unpermitted lagoons as well as those basins that have composite or concrete liners. The commentators noted that failing to address that distinction would result in hardships to agricultural operations. The Department responded that:

> The Department intended, as indicated by Commissioner Hugoson, to establish the 300-foot setback to unlined, unapproved, and potentially leaking lagoons not in compliance with MPCA requirements. The Statement of Need and Reasonableness references a 2001 MPCA study concerning the groundwater impact of liquid manure storage systems, and a conclusion that a 300-foot setback from unlined basins should not result in water quality exceedances. We have discussed this proposed modification with the MDA and MPCA and propose to amend the rule with minor modifications from the language submitted by the MPCA.

Accordingly, MDH modified subpart 1, item A, subitem 6, to indicate that the 300-foot setback applies to "a liquid manure storage basin or lagoon that ~~does not have a concrete or composite liner~~ is unpermitted or noncertified according to chapter 7020."[120]

140. The proposed rule, as modified, has been shown to be needed and reasonable. The new language serves to clarify the rule and does not result in rule language that substantially different from that initially proposed by the Department.

141. In response to the comments from the MPCA, the Department of Agriculture, and others, the Department also proposed to amend the rule to include permitted or approved earthen lagoons in the intermediate distance of 150 feet. The Department noted that the rule as originally proposed would unintentionally include

[119] Department Comment at 14.
[120] Ex. L at 7.

earthen lined lagoons in the 300-foot setback the Department had intended to create for only higher risk (unlined, unapproved, and potentially leaking) lagoons. The modification made by the Department to subpart 1, item A, subitem 6 (discussed above) ensured that earthen lagoons would no longer be included among those requiring a 300-foot set-back. The Department asserted that earthen lagoons present a risk that is between that posed by the non-conforming lagoons in the 300-foot distance, and the concrete or composite lined lagoons in the 100-foot distance. The Department proposed that subpart 1, item B, subitem 6 be added to require that a water-supply well be no less than 150 feet from:

> a liquid manure storage basin or lagoon that does not have a concrete or composite liner, but has an earthen liner that was constructed under an MPCA permit or is certified according to chapter 7020, except that the minimum distance to a sensitive water-supply well is increased to 300 feet as provided in subpart 2.[121]

142. The Administrative Law Judge concludes that the setback requirements included in rule part 4725.4450, as modified by the Department, have been shown to be needed and reasonable to assist in preventing the direct entry of contaminants into a well or into any open annular space around a well, in the event that a spill or leak occurs at the surface. The modifications made by the Department after publication of the proposed rules does not render the rule substantially different from the rules as originally proposed.

Based on the foregoing Findings of Fact, the Administrative Law Judge makes the following:

CONCLUSIONS

1. The Department of Health gave proper notice in this matter.

2. The Department has fulfilled the procedural requirements of Minn. Stat. § 14.14 and all other procedural requirements of law or rule.

3. The Department has demonstrated its statutory authority to adopt the proposed rules, and has fulfilled all other substantive requirements of law or rule within the meaning of Minn. Stat. §§ 14.05, subd. 1; 14.15, subd. 3; and 14.50 (i) and (ii).

4. The Department has demonstrated the need for and reasonableness of the proposed rules by an affirmative presentation of facts in the record within the meaning of Minn. Stat. §§ 14.14, subd. 4; and 14.50 (iii), except as noted in Findings 64, 70, 94, and 128.

5. The additions and amendments to the proposed rules suggested by the Department after publication of the proposed rules in the State Register are not

[121] Ex. L at 9.

substantially different from the proposed rules as published in the State Register within the meaning of Minn. Stat. § 14.05, subd. 2, and 14.15, subd. 3.

6. The Administrative Law Judge has suggested action to correct the defects cited in Conclusion 4, as noted in Findings 67, 70, 94, and 128.

7. Due to Conclusions 4 and 6, this Report has been submitted to the Chief Administrative Law Judge for his approval pursuant to Minn. Stat. § 14.15, subd. 3.

8. Any Findings that might properly be termed Conclusions and any Conclusions that might properly be termed Findings are hereby adopted as such.

9. A Finding or Conclusion of need and reasonableness with regard to any particular rule subsection does not preclude and should not discourage the Department from further modification of the proposed rules based upon this Report and an examination of the public comments, provided that the rule finally adopted is based upon facts appearing in this rule hearing record.

RECOMMENDATION

IT IS HEREBY RECOMMENDED that the proposed rules, as modified, be adopted, except where otherwise noted above.

Dated: March 14, 2008.

s/Barbara L. Neilson
BARBARA L. NEILSON
Administrative Law Judge